

National Academies of
Science, Engineering and Medicine

Societal Exerts Action Network

Fall 2024 Symposium

November 15, 2024

Proceedings by:

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P R O C E E D I N G S (10:00 a.m.)

Agenda Item: Welcome

DR. HOUT: Good morning, everybody. On behalf of the National Academies of Sciences, Engineering, and Medicine and the Societal Experts Action Network, I would like to welcome you to the third annual SEAN Symposium. I want to thank everyone here in the room and online for joining us. My name is Mike Hout. I am a professor of sociology at NYU. And I am here today as a member of the SEAN Executive Committee and also as chair of the Advisory Board of the Division of Behavioral and Social Sciences and Education at the National Academies.

This symposium is being hosted by the Societal Experts Action Network that we have from the beginning called SEAN. You will hear us talk about SEAN. And while we are grateful for SEAN, all the Seans in the room, SEAN, all caps, is our organization.

Sean is an activity of the National Academies that has been from the beginning sponsored by the National Science Foundation. SEAN connects the decision makers who are grappling with pressing societal issues and experts from the National Academies Division of Behavioral and Social Sciences and Education and elsewhere in the Academies.

Of course, a small group of behavioral and social scientists could not possibly address all of the concerns that come our way, all the questions we receive and therefore we have recruited a number of non-members also who have made significant contributions to the work of SEAN.

At its inception in 2020, SEAN was focused on the COVID-19 pandemic. As the pandemic and the virus have evolved, so has SEAN. SEAN's remit now includes addressing climate change, digital equity, loneliness, AI, and other issues of state and local interest.

To date, SEAN has produced 21 rapid expert consultations and hosted many events and webinars and this is our third annual physical gathering here at the Academies. SEAN's products are short, rapid, evidence-based reports that translate technical concepts into actionable guidance for decision makers. We call them Rapid Expert Consultations or RECs for short. And examples of current RECs are available at the registration desk on our website.

Today's symposium brings together some of SEAN contributors with state and local decision makers and practitioners to discuss the cumulative impacts of the COVID-19 investments that you have made in your communities and that we have made in our various research projects. We are trying to identify lessons learned from cross-sector

collaborations and explore how behavioral and social scientists can contribute to transforming the preparedness for ongoing and future crises. Our theme today is community resilience and that includes of course preparedness.

We are incredibly grateful for the opportunity to have you all here today and to be able to highlight the wealth of experience and expertise that our speakers, facilitators, participants and staff bring to these important conversations and onward to the actions that are needed to address these societal concerns.

Now, it is my privilege and my pleasure to hand the mike over to Maria Carmen Lemos, who is the executive chair of SEAN.

DR. LEMOS: Good morning and thank you all for coming. I second Michael's gratitude for having you all here, especially our decision makers, who have so graciously agreed to spend some time with us and talk about their experiences as well as their lessons learned and their aspirations for the next time that they have to make the same decisions that they have done during the epidemic. I actually also would like very much to thank everybody who was involved in SEAN for very incredible hard work for putting this together, especially the staff.

My name is Maria Carmen Lemos. I am a professor at the School for Environment and Sustainability at the

University of Michigan. Personally, I am a student of actionable knowledge. I am so happy to be amongst you because I always learned so much from those in-person meetings that we have here because we can actually learn from people who are making consequential decisions on the ground --

(audio drops for 1 min)

DR. LEMOS: That the stressors are becoming more severe, more frequent, and they are piling on each other. We had several examples this year of how is this happening and all that teach us how unprepared we are. I always say that capacity can only be realized when we actually have to use it. We all think that we have capacity until we know that we do not and we do not know what we thought we knew and we do not know what we do not know, which is the definition of wicked problems. In that sense, I am very excited for what is going to happen here and very excited to learn from all of you. Thank you so much for being here.

I am going to read a few housekeeping because I am very bad at housekeeping, so I am going to read exactly what they wrote for me. A few housekeeping items. This is a hybrid event. There are people attending in person and virtually. During the upcoming panel discussions, in-person attendees should use the microphones placed around the room to ask questions and the moderator will call on you.

Virtual attendees should submit your questions using the Q&A in Zoom and a staff person in the room will raise the question on your behalf.

We have a graphic note taker capturing key emergent themes from our panels and group discussions. We will have opportunities to view the graphic during and after the symposium. Recordings of the panel discussions will be available on the SEAN website a few days following this event. If at any point you need something just to have the SEAN team identify themselves around the room. Malvern., our fearless leader, Chelsea, Sean, Annie, Ron, and Bridgett. Without further ado, I would like to invite our first panel to take their seats and also we will hand it over to Dominique Brossard who is going to lead the path.

Session 1: Cross-Sector Effects of COVID-19

Investments

Agenda Item: Panel 1: Cross-Sector Effects of COVID-19 Investments

DR. BROSSARD: Thank you, Maria Carmen, and welcome everyone. Welcome to our present attendance and also to our virtual audience. My name is Dominique Brossard. I am a professor and chair of the Department of Life Sciences Communication at the University of Wisconsin-Madison and also member of the Executive Committee of SEAN.

I am really excited to actually facilitate our first panel here, as you know, that will focus on cross-sector interventions in the case of the pandemic. We did all we could in the context of the pandemic. But as you know, as we were going forward very fast without having much time to actually think about it in a collaborative section, each sector actually presents activities and effort that we are not really bringing together all the minds and efforts and resources that could be the best for our communities.

The first panel here will focus on examples on the ground of those types of cross-sector activities and we will transition later on to tabletop activities that will focus on the same type of thing.

I do have also have some logistic questions, logistic items. Since this is a hybrid event, we will take questions at the end of both presentations, in-person and virtually. To ask questions, please line up at the microphone and virtual attendees should submit questions into the Q&A feature of the Zoom and a SEAN staff member will ask the question on your behalf. In addition, other questions we collected during the registration process so we will make sure to actually address those as much as we can.

Without further ado, it is my pleasure to introduce our first speaker here, Umair Shah, who I will ask to introduce himself.

DR. SHAH: Thank you so much for the warm welcome, the introduction. It is great to be part of this panel. And I just want to thank the National Academies for this opportunity to really describe and discuss what was really important and continues to be important for all of us, which is how do we work together across silos and across different sectors.

My name is Umair Shah. I am the Secretary for Health for the great State of Washington, Washington State, the other Washington. I always have to point that out when I am in Washington, DC. It has been a great honor to lead the Department of Health at the state in Washington where I joined. Actually the week that COVID vaccines arrived in the State of Washington is the week that I assumed leadership.

Prior to that many of you may have known that I was the executive director and the local health authority for Harris County Public Health, which was serving the third largest county in the US with five million people and that was also through a number of emergencies from hurricanes and Ebola, Zika, as well as other infectious diseases and also of course COVID-19. I was on the front

lines of COVID-19 response at the local level and then transitioned to the state level right in December of 2020 so to give you a little bit of context of my background.

I wanted to really describe a few things. First of all, I want to make the comment that we want to do a lot of reflection of what occurred during COVID-19 but we want to make sure that we are not stuck in what happened in COVID-19 because there is so much that has occurred since then. We have all learned. We have all been impacted. We have all understood and underscored how important the response was to all of our lives, our families, our neighbors, our co-workers, and the activities that we were all engaged in. And very quickly we saw things stopped. We saw Washington, DC without people on the streets. We saw New York city with Times Square being very silent. We saw things that were happening across the system in large communities, small jurisdictions, everywhere across the country and across the globe that there was some impact on people.

When we look at the COVID response, while it was primarily a public health response from the standpoint of the virus and the actual response to the virus, we cannot forget the importance of what happened across the system.

I do use some terms that sometimes can be seen as a little bit provocative. I will start with saying that we

have silos of excellence. That we all believe in our own silos, our own sectors that we are excellent, education, health, transportation, housing. And we also within our own silo of public health, we think that epidemiology is excellent, environmental health is excellent, and all of the different parts of public health are excellent.

But the key is not silos of excellence. It is really systems of excellence and how do we work across those silos to build the systems. And that means that when we are increasingly thinking about health as being a community-wide activity and not just an activity that is about what happens in a healthcare sector or the population health, the public health sector, we have to be thinking about all of society. Those silos are so important to break down. We have to work across systems and that means our faith communities. That means our business communities. That means our educational communities and that means a whole host of societal functions that must operate.

We have to absolutely be thinking, here is the second point, that it is federal, state, local, community levels, which is these vertical pieces of integration or levels of integration. But we also have to be thinking about horizontal integration. That horizontal integration must include health with all of the other systems that work together.

A couple of examples that I wanted to use were, one, as you can imagine, Texas, and I am not sure if anybody has checked, has a very different ecosystem and environment than the State of Washington. And it is not just about hurricanes and mosquitoes and heat emergencies, but it is also the fact that when you come to Washington, it is not just about waterfalls and rainbows. We have orcas and all sorts of other fantastic things. It is the fact that we have some very prescriptive and very concerning differences in how we see the world. It is not that we see the world differently. It is what we say the problems and challenges, how those problems and challenges must be addressed. There is a different philosophy. But I want to be really careful. When you are in Texas and you in a Houston or an Austin or a Dallas or a San Antonio, it is very different in Texas than what is happening in West Texas or East Texas or even on the border.

When you are in Washington, this is going to surprise you because the last election - one of the only states that went further left in our political leanings. I will tell you that when you cross over the mountains, the pass from the I-5 corridor, which is Seattle and Olympia and everything in between up and down from Canada down to Vancouver in Washington and down towards Oregon and my colleague in Portland is that over the past, you all of a

sudden have a very similar situation where it almost resembles what I would say is in other parts of Texas. That is the part that we forget that we have an increasingly divided country and yet within varied states, we all have the ability to really see across those differences.

In Houston, one of the biggest things that we were doing during the pandemic was bringing our health care sector together so as public health and - I remember calling the alarm. Hey, there is this virus. We need to get Texas Medical Center together. My colleague, Dr. David Persse, the Health Authority for the City of Houston, and I convened meetings at Texas Medical Center, which is not the largest medical center in Texas or the largest in the country. But because it is Texas, it is the largest in the world. And bringing institutions such as Baylor College of Medicine and MD Anderson Cancer Center and Texas Heart Institute and Texas Children's Hospital and all of the other institutions was not easy for public health to do. But we did it because we recognized that there was a common goal which was to protect our community. I think when we focus on protecting our community, the opportunities for that collaboration across public health and medicine are a lot easier. That is the first example.

But let me fast forward in the interest of time to Washington. In the midst of COVID response, our governor

was very clear. I want to do everything that we can to protect Washingtonians. And what that meant was that we also recognized the importance of public-private partnership. What we did is we put together something called the vac center. It was a center that was really around public-private partners coming together but allowing a table for people to come together on a daily basis. We had Amazon. As you can imagine, there are a lot of different organizations in the State of Washington. Amazon came to the table. We had Microsoft to the table. The Gates Foundation was at the table. We had Microsoft at the table. I am now all of a sudden forgetting. Starbucks was at the table. I have to make sure I got that because I have my coffee.

Why do I bring that example up? The whole point of this public-private partnership is that we need to curate what our needs were and the private sector would say we can help you with those needs.

The governor said to us, Dr. Shah, your team, we are going to have four mass vaccination sites up and you have 36 hours to put them up across the state. We said, yes sir. We will do it and we did it.

But we turned to our VAX center and we said to our partners, we need help here. This coffee company, starts with an S, ends with an S, I just mentioned

Starbucks, was part of the VAX center. And they said if we can get coffee or lattes in the hands of people across the globe 35 percent more efficiently, we guarantee you that we can help you with your mass vac sites to be more efficient and they did.

The lessons are you have to have those opportunities to work with the public-private partners but also shame on us if we do not ask for that help and also shame on the private sector if they do not offer that help.

The two examples I hope show that there is this real need to have horizontal integration of what is occurring whether it is in public health and medicine but also the public-private partners must come together. And those private partners were not - I mentioned all the big ones. They were not just the big ones. They were some of the mom and pop. They were some of the small businesses. They were some of the education partners, the faith partners.

And the last part of this that I would mention is that we had an equity collaborative because one of the things that said resoundingly in our state is that is not just about vaccinating everyone or people as much as we can as fast as we can. It is also we do not want to leave people behind. And we have to make sure no matter who you are, what you look like, where you live in the State of

Washington that we are going to work to make sure we can get you vaccines but people did not trust us and that is the last lesson. If we do not get to trust with the very partners and the different sectors, we can never get to the point of being able to deal with any of the emergencies that are going to be coming our way.

Let me stop there. There is a lot more to unpack. I want to have time for my colleague to give some remarks. It is just an honor to be here today. Lori.

COMMISSIONER STEGMANN: Good morning. Thank you so much, Dr. Shah. It is great to have a Pacific Northwestern sitting up here with me. Good morning. I am Lori Stegmann. I am a Multnomah County Commissioner in Portland, Oregon. You probably have all heard and read about Portland, Oregon. Let me tell you it is a wonderful place, a beautiful place. It has amazing people. Please come visit us.

I also am joined by Layan Ammouri, my Senior Policy Advisor. And actually, what I am going to talk about is something called the common application today and Layan was my policy advisor who led this charge and did all the hard work.

And those who you do not know just to give you an idea, Multnomah County is about 800,000 population. The

City of Portland has about 600,000. It is a fairly large city.

But I love the title of this, learning from COVID-19 to build resilient communities. That is something that I have been really focused on is around building community resilience.

When I think about our most intractable social issues, I believe that poverty is a root cause to the majority of our challenges from racial inequities to homelessness and the many forms of violence that we experience and see in our community.

We all know that when the pandemic came, these problems already existed and the pandemic just laid bare and exacerbated the challenges that we were already experiencing. The district that I represent is called East Multnomah County. And you all probably all have an East Multnomah County because when you think of Multnomah County, you think Portland is somewhat affluent area. But this part of East Multnomah County is one of the most low-income, most diverse parts of the county. It is probably comparable to any small, rural county within the State of Oregon and has a lot of poverty. It is very diverse, home to a lot of immigrants, refugees, and in the Brookwood neighborhood that I grew up in, there are over 80 languages spoken.

I wanted to highlight and work - what we learned during the pandemic is how important are CBOs, our community benefit operators were, and the nonprofits were to do the outreach. We were doing food boxes. But we knew that we had to provide culturally specific services to people. And honestly, government - we are not good at that. We contract. It was really a lovely way to begin a much deeper relationship with those culturally specific CBOs.

What we knew is that people accessing or having access to essential services was very problematic and especially for those that have language barriers. I want to talk to you a little bit about how the common application kind of the genesis of it is that in 2017, it feels like déjà vu, but in 2017, I became the county commissioner. We were working in a family shelter. We had a family night. I met a young woman. She was pregnant. She was staying at the shelter. She knew about SNAP, the Supplemental Nutrition Assistance Program, which is essentially food stamps. But she did not about WIC, which is Women, Infants & Children program. It helps support babies and new moms. I thought to myself, this is such a travesty. There are so many services that people do not even know exist. What I have learned is that the problem is not necessarily lack of money. It is lack of access and awareness. That was really what I was trying to solve for.

According to the White House, by one estimate, every year more than \$140 billion in government benefits that Congress has authorized goes unclaimed, \$140 billion with B. That includes tax credits for working families, health insurance, coverage for low-income adults and children, unemployment benefits, and disability support. And similarly, researchers have found that many small businesses that could qualify for tax credits do not claim them. This is really something that struck me is according to the National Council on Aging, over \$30 billion of financial assistance goes unclaimed each year by seniors. This gap between need and awareness and what was actually out there and available to people seemed like such a travesty to me.

And the other thing - any of you who have applied for anything on the Internet is that prior to the common application, residents would have click through multiple websites and answer close to 100 questions to apply for one program. To me, that is question fatigue. You all have been there. This is taking too long. I am not even going to apply. We know that this was a major barrier for families, seniors, and others who were seeking support.

To increase access and decrease the barriers, we partnered with a company called FORWARD. They are a software company. We collaborated with our CBOs and

nonprofits and we developed something called the East County Resilience Network. Our goal was to increase access to benefits and simplify the application process. We did this by creating a one-stop platform to apply to multiple services simultaneously through one single application.

The application not only improves access and reduces redundancy and trauma for residents, but it provides a straightforward way for county departments and community-based organizations to post their services and simplify the application process. And what is different about the common application especially for those of you who work in bureaucracies or government is we use the human-centered approach, which is not really our go-to methodology in government.

Instead of making applicants have to adhere to our forms, our policy, our policies and limitations, we ask what would make it easier for you if you are a family, if you are a senior, if you are a mom. We took a more holistic approach like the whole of society, all-of-society approach that has been mentioned and we ask the question, what if people were more resilient, more healthy, more financially secure before a catastrophic event.

I want to highlight how important collaboration and partnerships are. Since 2017, you may have heard of the National Association of Counties. I have been work with

them to develop and share tools to improve economic mobility. That is how the common application came to be is I applied for it and received 100,000-dollar grant through the Gates Foundation to get this process going.

We also work with our internal county departments to ensure cross-functional support as was mentioned. There are a lot of silos, not only between different jurisdictions, but within our own jurisdictions and between our departments. Because we work together, we were able to address privacy and compliance concerns very effectively.

And one of the challenges we had was the data sharing and the compliance challenges. We needed a way to confidentially collect information from multiple programs while ensuring that they were HIPAA compliant and that there was privacy. That was where FORWARD came in. It is because they were a third party and they held this information. We do not have access to the applications. And really all we did is serve kind of as a portal and then that information was farmed out to each individual organization who was sponsoring that particular program.

The other challenge, as I mentioned, is that language was a significant barrier with over 80 languages spoken in my district. We translated the application into the four main languages spoken in Multnomah County, which are Russian, Spanish, Vietnamese, and Somalian. We were

also concerned about people who do not have access to the Internet or knowledge about even how to navigate digital applications. With FORWARD's assistance, we included a call center with 68 languages. They also have interpreters that are available to actually walk people through an application if they do not feel comfortable doing it online.

Fortunately, we were able to overcome many of these challenges when the common application went live in May of 2024. We have nearly 20 different applications that are available. We have expanded accessibility, and we also have real-time metrics. We have a dashboard.

What I am really excited about too is that we significantly reduced the complexity of applying. We cut questions from 84 questions to just 19 for families that were applying for services. And for seniors, it used to be 70 questions and now it is down to 17. Our partnership with FORWARD allowed us to create a HIPAA-compliant system that protects privacy while enabling data-driven decision making.

I also want to mention too that Multnomah County - we are in the process of developing a new public website in digital services transformation initiative. We are now employing strategies on all of our forms to digitize county programs and services as opposed to using a paper

application and PDFs because we know that these old methodologies create barriers to accessing services.

By developing a more centralized system for program and service access, we will truly, I hope, is my goal, to bring county government into the 21st century. I will stop there but that is a very concise overview. And I know that we have links that if you all want to see the common application, we will make sure that you have links and access to it. Thank you so much.

DR. BROSSARD: Please join me in thanking our excellent speaker this morning. We have time for some questions to our speakers before we turn to our tabletop discussion. But I want to remind everyone that for now, we will focus on questions to clarify or learn more about the specific examples that we heard about today. The tabletop discussions are going to dive more in depth into what we can do - we will have the same type of setting in the tabletop discussion. I am opening the floor for questions.

DR. BENNETT: Ayanna Bennett, the DC Health Director. Did any of those relationships survive? Do you have relationships with those organizations now and if so, around what?

DR. SHAH: First of all, thank you for your leadership in DC here. It is great to see you. I am so glad you asked that question because in the interest of time, I

did not get to that part. I am so glad that you had this set up for me.

One of the biggest challenges that we have in our fields is this up and down capacity building, the reaction, reactivity. We are not proactive. We all build capacity. We build capacity and then it goes away. It is the next emergency and then all of a sudden it is rinse and repeat. It comes back. You lose an epidemiologist. You lose a partnership. It goes away. You come back. It is just up and down, up and down, up and down.

One of the really important pieces of this is to have both commitment and leadership when it comes to both of these activities. In particular, I will talk about the Washington example because obviously it had more to do with the system about that.

As I mentioned, there were two activities. One was the public-private partnership and the other was this equity collaborative, which was the 700 community-rooted organizations from all across the State of Washington that came together and said it was not just about the numbers. It was also making sure we did not leave people behind.

In both of those, what we said is that we want to sustain the partnership with the business sector to continue to build on that. We actually not just had an initiative but what we did is we - after COVID-19, we

actually transformed our health agency. We had a transformational plan, which is very small. As you can see, it is not 10,000 pages. This is it. It had five priorities. We transformed with that our agency. Now, we have an office of strategic partnerships that now takes those partnerships that we built during COVID-19 and sustains those for the future. That includes now - we have partnerships for a new initiative that we just launched called Be Well Washington, which is on health and wellness. It is about holistic health, movement, nourishment, emotional well-being, and social connection.

One of the partners is Seattle Sea Hawks, a football team who say we are all about fitness. We are all about athletics. Guess what? They are also champions of getting the message out to the community. That is an example of where our strategic partnerships continue to maintain and curate those relationships.

On the equity collaborative, the second one, what we have done is we have said this is so critical to get voice of community to our health agency that we have sustained that equity collaborative even though we have had financial constraints and pressures. That is the commitment piece that regardless of where the dollars are constrained, we must continue to center equity and the voice of

community in the work that we do so two examples of how to sustain.

But the last point on this is that we do know that these take investments and investments, if they go up and down or those cycles go up and down and we are reactive, now proactive, we lose the capacity. Unfortunately, we do have a significant challenge that will continue to happen, which is those investments eventually mean that if they go away, then those programs do - initiatives do go away despite the commitments.

DR. BROSSARD: Thank you. Lori, do you want to elaborate?

COMMISSIONER STEGMANN: Can you repeat the question please?

DR. BENNETT: Just the relationships that were built and the networks that were brought together --

COMMISSIONER: STEGMANN: Yes. We have something called the East County Resilience Network that is embedded in our Office of Sustainability, which I am really happy because as a policymaker - when you have this idea - I am terming out so I will no longer be a county commissioner at the end of this year - is that we were able to embed and codify so the sustainability department is actually maintaining those relationships with a monthly newsletter,

with convenings, a lot of communication and education around community resilience. Yes, we are.

I am really excited that an actual department has adopted this vision or this idea or this hope because that is the thing is that when we have a major catastrophic event, you do not want to start trying to like who should I be calling. No. You want to have those relationships. You want to know exactly who does what, who is culturally specific. We have fires like many people did. During that time, people were like we have land. We can take livestock. That is the kinds of things that you learn about each other if you know each other and you already have those relationships. That is absolutely critical.

DR. SHAH: If I can just add one piece on the business side on the private sector side and that is that it is really hard when it is not an emergency to get your private sector to the table. You have to really work hard in those relationships because guess what? They go back to their corner, and this is true of all of the sectors, they go back to their usual way of doing their work just as health does. And we have to find a way to continue to say it is an all-community approach to whatever the challenges are. Thanks.

DR. DRAKE: Good morning. Bo Drake with Chattanooga State Community College in Chattanooga,

Tennessee. Lori, my question is for you. You are able to overcome the progress prevention department in the work that you did. I am just wondering. How did you overcome the resistance? Was it brute force? Was it negotiation? Was it collaboration? Without naming names, I would just love to hear some of those details.

COMMISSIONER STEGMANN: The answer is yes.

(Laughter) All of the above. This is a three-year project. And honestly, there were days that Layan and I were like we are done. We do not have the support.

And the other thing about Multnomah County with all due respect is that - like many departments in counties, we need funding. When I went to IT and I said this is what I want to do, they are like we do not have time for that. We do not have staffing. We do not have capacity. Three years ago, they were just not there. But today - we just met with our IT department, and they are so excited about a human-centered approach and digital transformation. We had to wait for the county to catch up with what we wanted to do.

Honestly, I did not have support. We were dead in the water. I cannot do this unless I have support because their biggest thing was about HIPAA. They are just like no. You cannot do that. We are like can we talk about it. We just keep pushing.

And then our chief operating officer - to me, this is a very simple idea but it does not mean that it is easy to implement. Trying to get our COO on board was a challenge. We eventually got them on board. It just took me talking to my fellow board members, our county chair. And really a call out to the Gates Foundation because when you show up and you say I have \$100,000, people are like you can go do your little common application. But then we had data. We engaged with the community. You just have to create this inertia. But I am telling you having seed money - this would have never happened had it not been for the National Association of Counties and my work on economic mobility. But we never gave up. We just kept talking and talking.

And then as an elected because we have an annual budget, then each year I was able to advocate for \$100,000 here. We actually got a full-time person to work on the common application. Again, for electeds, it is really about getting your policy embedded into the chief operating officer's office or into a department. And once you do that, then you are off to the races.

DR. BROSSARD: I think we have questions from the virtual audience.

MS. FOWLER: Yes. We have a question from our virtual audience. Someone asked about the thought about

silos of excellence and talking about breaking those silos. But silos exist and were created for a reason. What if shifting to connecting silos and better understanding why silos exist and how do you build trust between silos?

DR. SHAH: Yes. I assume that is for me. I would say two things. Yes, silos exist for a reason and silos can oftentimes be seen as a negative word. And we do want to make sure that we do have the ability for sectors to be strong in their own right. That is absolutely the case.

However, we also recognize that if we are taking an all-society approach to wellness or well-being or the improvement of whatever it is that we are measuring, we have to really work across those systems. I am not implying that it is not important to be excellent within those silos within those sectors.

But what I am saying is that you get an even richer opportunity for all of society improvement when you work across those systems. That has been shown not just in the literature but it has been shown in practice. You can see it in emergencies. It happens all the time. For all of us who have been in emergencies, we know that you have all of the systems come together and you see that. You see social work and social service. You see the business community. You see the education community. You see the faith community. You see the nonprofits all in one confined

space. In Houston, we would see them oftentimes at the Astrodome or after a hurricane response, you would have 700 organizations that would all be in one place and you would see that.

I think the biggest challenge is when you do not have the emergency, you do not see those groups working together and that the call to action falls by the wayside. COVID was also difficult because you were having, as we all know, information that oftentimes you would see changing science or changing guidance that usually would take maybe years of science or maybe months of work. You were getting in weeks, days, hours. You would say something in the morning. I remember in Houston, I would say something in the morning on this morning television program that we did, and by afternoon that information was dated. It was really hard because we were trying to take information that was coming very fast at us while we were also pushing that information out.

But we talked about trust earlier and I think this gets to that issue about silos is that obviously when we are giving messages and it is evolving and the public does not understand why it is evolving, that is when you have to rely on those messengers and partners that you have built during the emergency and/or acute issue so that you can get that message out.

Oftentimes I would say that - there is a faith leader in Houston named Joel Osteen. I think some of you may know. He has a Sunday sermon. If I, Dr. Shah, said eat an apple a day, maybe my daughter might eat an apple. Actually, she probably absolutely would not eat an apple a day. But if Joel Osteen said eat an apple a day - by the way, this is supposed to be an apple. Our bushels of apples did not come so this is now a stress ball for Be Well WA. It should have been an apple just so you know - is that people would listen. That is fine. Because are we really interested in who is the messenger and are we really interested in just the language or are we interested in the outcomes. To me, I think we should be focused on the outcomes.

DR. BROSSARD: Thank you. I think we have time for one more question if anybody has any.

DR. ANGELL: Sonia Angell, part of the SEAN Executive Committee and also a former director of the California Health Department. This question is for Lori. I am so impressed that you were able to bring together this common application particularly because there is a lot of vested interest. Beyond the tech issue, there is a lot of vested interest in the way things have been operating over time. Since this is about stakeholders, I am wondering about those who might have opposed this because they saw

perhaps loss of jobs or resources and how you brought them back into the fold, which is a key part of this, I imagine.

COMMISSIONER STEGMANN: Thank you for that question because that was a real eye opener to me. I was not expecting to get pushback about - I love our unions and support family wage jobs. But there was a fear. I think you all have seen it, experienced it around artificial intelligence and technology and is that going to take jobs away from people. That was the initial reaction that we received.

But what we learned is imagine if we could take redundant tasks - isn't that the whole point of IT of things that are repetitive? Humans do not need to fill out applications. But what humans should be doing is work that is more human centered that requires our emotional intelligence and our creativity. Actually, the benefit of the common application is because nobody has a ton of funding. Funding is being decreased, in fact. We have to figure out how to work more efficiently. We cannot hire more people.

I think about the rental assistance that we got during the pandemic. Typically, in a year, we were distributing \$10 million of rental assistance in Multnomah County. During the pandemic, \$100 million. We went tenfold. Imagine all of a sudden you go to work today, and you are

like guess what. Your work has increased tenfold. We were not ready. But if we can mechanize it or digitize it so that it does not matter whether you are doing 10 million, 100 million or 200 million, you have a system in place that can handle any level of that rental assistance. It is a real fear.

But what I tell people is that just frees you up. Who wants to be doing paperwork? Did you fill out this application? Did you get that right form? Nobody wants to do that. What if you could help 100 people in a day instead of 10? And that is what really resonates with the nonprofits and the CBOs because this is something that - while it is a county program, we were trying to push it out. We want hospitals. We want neighborhood associations. We want shelters. We want churches. It does not matter. If you are a Multnomah County resident, you can apply for this service and you do not have to know what the service is. There is huge benefit.

Again, if people are already resilient before a crisis, then that makes all of your work, our jobs much easier to begin with and it enables those folks not to need our services so that we can truly concentrate on those that absolutely do need our services when a catastrophic event hits.

DR. BROSSARD: Thank you. Please join me in thanking our speakers for sharing their experiences.

(Applause)

Agenda Item: Sharing Highlights and Facilitated Discussion Across Tables

DR. BROSSARD: Now, we are going to turn to our small group discussions, following the same type of format. Each table will have a presenter that will share some examples of cross-sector collaborations. And then we also have a facilitator that will moderate the discussion. After that, each table will share their experience and hopefully we can actually find common themes among all of us to work together towards facilitating these excellent experiences that have been shared here.

Presenters, if you want to join one table to be able to participate in the discussion, that would be great. Virtual attendees, we also have a facilitator and a presenter for you. Please stay with us to be able to continue with this activity.

I am now turning to the tabletop facilitators, which I do not know who it is -- is that each table to actually share one highlight. We are not asking you to summarize all those incredible discussions, but one highlight that actually was particularly important to you

and then we will ask the group to add more themes. Let us start with Skip here.

DR. LUPIA: Our group discussed a project called Colorado Blueprint to End Hunger. It is awesome. There were a lot of highlights but I think the one thing that I will just pick out is the importance of evaluation to this entire effort in terms of learning from a whole range of stakeholders and in particular, hearing how they evolved their evaluative framework to think less from an academic perspective in the beginning and more from what do you see, what do you need, and how can we learn from you. It is a very effective organization.

I think as we got to what that means, also when you think about that information, how do you share it? Are there more effective ways to make the lessons from local places available because there is so much to learn from one another? I would encourage you all to learn more about it because it is an awesome effort.

DR. BROSSARD: Thank you. Let us turn to the next table.

DR. PLECSIA: Our group heard about the Hamilton County, Tennessee Vocational Reentry Program, which is - a very close summary is a program run by the local technical college to go into the local jail system and provide skill-building opportunities for those incarcerated folks.

We had a lot of really interesting discussions, particularly around some of the politics and stuff. But one of the things that came up very early was this issue that - it is a program that kind of started with a very finite goal to decrease recidivism to keep people from going back into jail, which was critically in the interest of everybody in the community. But this question is about what about the broader impacts of this actually creating a better life for people who were able to participate in those programs. We touched on that a little bit. I think it was an interesting component that could definitely be broadened to other approaches as well.

DR. BROSSARD: Thank you. In the back.

DR. LEVINE: Hi there. Our table talked about the Cambridge Holistic Emergency Alternative Response Team, which is Cambridge HEART. Cambridge HEART was formed in 2020 after George Floyd. It was really meant to serve the more marginalized population in Cambridge, Massachusetts and especially looking for and to foster unarmed responses to people in crisis. They have grown tremendously and are doing a ton of different programs. Corinne Espinoza is the head of it and she shared a lot of great details. I definitely encourage you to talk to her over lunch about it.

In terms of - I was actually going to say something about all of the ways in which they have fostered collaborative relationships across the city with people who like them and people who do not but sort of under the guise. And one thing that they have really found is that other agencies and other organizations within Cambridge will treat the people they are serving more seriously if there is an organization speaking on their behalf.

I was going to talk about that but then actually she slipped me a Post-it note right before hand and was like - she also wanted to emphasize that they have actually benefitted from partnering with some academics. As it turns out, it was actually somebody I went to graduate school with, who is Spencer Piston at Boston University, the political scientist at Boston University. That is another take-home lesson.

MS. FOWLER: I am going to share some highlights from the virtual tabletop discussion. We had Lisa Rachowicz from San Francisco, California's navigation centers. One of the high points from that discussion was the impact of partnerships both before, during, and after COVID. With the navigation centers, they looked to how are people experiencing homelessness. One of the interesting pieces of their centers is that they allow for more stability in case

management by having low barriers to entry as well as not limiting this stay unlike many housing facilities.

During COVID, they had a very deep partnership with their department of public health who they had not previously been as closely tied with. And that partnership has really paid dividends in the years since where they were able to provide policies, communication, education, technical assistance to their nonprofit partners and a lot of the social services that their residents interact with.

And it has also helped to have the relationship in place for when they have faced additional crises such as Mpox. They already had the relationship in place with public health as well as the multi-systems within public health such as infectious disease, as well as frontline workers. They were in a better place to support their residents because of the partnerships that had already been created - moderating that discussion.

DR. BROSSARD: Thank you. Next table.

DR. ANGELL: Thank you. We had a really terrific table so let me thank everybody for engaging. Breanna McArdle was our presenter and she is from Washington State and directs the Washington wastewater-based epidemiology program.

She told us this really great story. In the middle of COVID, going out to rural Washington, snow on the

ground, she is from California, shows up at wastewater management or wastewater services and was like I am from the health department at the state. We want samples. The crux of the story is that she started with just two wastewater management engagements with two local health departments and now it has grown up to a program with 19 wastewater management centers with 32 local health departments engaged.

I think the key piece here though is that she showed up personally to talk to them. It was kind of a matchmaker between these wastewater management programs and the local health departments. Washington State is a decentralized home-ruled state. At the state level, they cannot really push anything. I think part of the richness of the story was how successful she was. And I think part of the challenge, as we were talking about resilience, was the fact that it is extremely difficult in these kinds of environments to create sustainable system integration because there are great difficulties in trying to figure out how to pay waste water management even to do this or to develop anything that is long term. I think that is what she is going to be grappling with but it has been a huge success so far.

DR. BROSSARD: Thank you. Last but not least.

MS. AMMOURI: We had a really great conversation about the human arts Chicago program, which is a unique and inspiring program that bridges arts, health, healing, and wellness by creating an apprenticeship program where artists can be trained to be community health workers.

We started to just have a conversation about health and wellness in general and artists and how we thought that organizations could compensate and recognize the work that artists are doing in the community at a larger state and be able to integrate that into more programs and compensate them accurately for that work.

DR. BROSSARD: Thank you, everyone. This was really nice to hear about all those experiences. I would like to open it up to the room for anyone to share their own highlights or observations before we attempt to actually see if we can identify patterns and themes that run across.

DR. SCHOCH-SPANNA: Monica Schock-Spanna, Texas A&M University in San Antonio. What struck me about the example of the vocational reentry program for people in jail is that this collective vision actually had lots of little visions. And we talked about the fact that everyone's institutional and individual self-interest were being served by this program. Employers wanted a skilled workforce. The sheriff did not want to see the faces of

people coming in and out. The students/inmates wanted to improve and the technical college and the community college wanted to confer education. To paraphrase Cynthia, it was not just one outcome that everyone agreed to. It was this collection of outcomes that spoke to specific self-interest in the best of meanings.

DR. BROSSARD: Thank you. I want to turn to Linda online.

MS. LANGSTON: Thank you, Dominique. I would add that regarding Lisa's presentation - the thing that struck me about the program was really a significant - this was the homeless navigation centers and there was a distinct change in language that really for me conveyed respect for the homeless populations and a big transition was to longer stays. They no longer implement a 30-day limit on staying in their navigation centers. People can stay longer, which I think does a great job in promoting stability. It was a pretty stunning number to think about the 3300 people who they had in shelters during COVID and they moved 1800 of those people into permanent supported housing. I think that there is a big lesson learned there in terms of how you interact with people and giving them the agency to have their own privacy to be respected and to be able to stay in a place long enough that they can build the stability that they need to pull their lives back together. Thanks.

DR. BROSSARD: Thank you, Linda. Anybody else?

Other observations from the tables?

DR. LEMOS: I think a common theme has been how good ideas get sustained and what kind of compensation and incentives that you can model for that to happen. Of course, the easy path is formalization. If we just get the policy in place and facilitates us to do that. But then you also see the advantages of that sometimes because it limits the kinds of partnerships that you can have.

I think that a common theme has been how you scale it up but you still keep some of those values that made them work to start with still alive in that relationship.

DR. BROSSARD: Thank you. I actually have a question for all the presenters. Obviously, you have been successful but you have not told us so much about the challenges and what you wish was in place to actually help you be successful faster. Can we identify any common challenges that have been discussed at each table?

DR. DRAKE: I am happy to get us started. Again, Bo Drake, Chattanooga, Tennessee. We have had no challenges. It is all perfect so thank you. Our challenge really has been bureaucracy and getting paperwork done. Once we had funding, it might have only taken us about a year to get all the contracts in place. That is mind

numbing while people are waiting for the services that you are getting to bring to them.

I always motivate my team from the aspect of we are sitting around this table talking about doing things for other people that will allow them to have a holiday season this year unlike any other holiday season that they have had. We really want to be focused on that impact and those outcomes.

And then I would say just the other piece is making sure - you can have governmental agencies that are working together in a recidivism reduction program. But the reality is these government agencies are not typically the ones that are providing economic opportunity for those going to the program. We are not hiring those individuals. A critical element in all of this work is that we have the right employers around the table and we are educating the employers about the great potential that humans possess and that we can learn new things and change and we do not have to be cast based on a decision that we have made previously. Those challenges - just bureaucracy and making sure that we are educating employers and giving them a place to be involved in the process.

DR. BROSSARD: That is interesting that you say that because it reminds me of Umair's point about engaging with private companies and making sure that we reach out to

them to make sure that they are engaging the process. Thank you for that. Anybody else?

DR. SHAH: Actually, I want to marry the points, Monica and Bo's points. I think they both made some excellent points about working with your partners. I think in this public-private partnership space, there is a lot of reluctance to move in this direction because we feel that self-interest is a bad thing.

What our table was discussing was the fact that you can have self-interest in different agencies and/or sectors that are coming together for whatever that reason is. But that overall common good for whatever that initiative is to be successful for the communities overall self-interest means that, yes, you need to have guardrails in place when you have public-private partnerships or when you are having the political pieces, you have to have those guardrails in place but yet that should not stop you that you should be able to get beyond that as long as you continue to remember that self-interest itself is not always a bad thing. You have to remember what the overall mission or goal is for what you are trying to get across.

MS. MCARDLE: Mine is not necessarily a challenge. Well, kind of a challenge. I got my first job in epidemiology working on Oregon's part of the National HIV Behavioral Surveillance system, which is a system that

looks at populations at increased risk of HIV. I think it was within my first couple of weeks, we went and looked at - sat in on Seattle's training interviewers that they were going to interview people who exchange sex for goods and services. They were doing a specific cycle of the NHBS. Their prioritization was risk reduction. And I remember them saying if you ask them if they are using protection and that they are using a condom. And if they say no, you cannot shame them. You cannot make them feel bad. You go to the next step. You say let us get you tested more often. Are there situations where you can wear a condom.

As a public health professional, it broke my brain and I understood as a human the upsetness about anti-masking and anti-vaccination. But one thing I always try to remind myself of is you have to meet the people where they are at.

During the pandemic, watching people who can get through thinking I cannot force somebody to wear a condom during a sexual interaction. Not being able to be like these people do not want to wear masks. I have to figure out how to get to the next risk reduction step. Again, I think there are a lot of emotions and understandable resentment. But meeting people where they are at is how we built our program.

Part of the story of driving out to a rural wastewater treatment plant, we entered in and they said okay about this pandemic. He put quotation marks. The wastewater operator was not saying the word pandemic. We chatted. At the end, they were actually going to think about giving us samples to test for the pandemic pathogen in their wastewater and also he helped me move my car out of the snow because I did not know how to park in snow. Meeting people where they are no matter how frustrated you are with their logic behind things I think is both a challenge as a human but one of the most rewarding parts as a public health professional.

DR. LEVINE: I will talk about our biggest challenge but also maybe an opportunity in some of the barriers. The biggest challenge for us is 100 percent funding. We know what we want to do. We have done a ton of research. We have people who want to do it. We do not have enough money to hire enough people to do the work.

But an example of a barrier that is actually an opportunity. A lot of times - in our community, a lot of marginalized people - I will use one specific example - are harmed because of racism, baked-in racism and misogyny in some of our systems. For example, the Department of Children and Family Services does not always treat all people properly in our community. A lot of people would

consider them a barrier in our community. However, there are some people within that system who worked very hard to teach us about the system to teach us about people's rights, constitutional rights to parents, for example. And they have been very integral in helping to make our work move forward. Just echoing what Lori was talking about in the service of good, there are a lot of people who want to make things happen even in some of those areas that might be considered barriers or difficulties.

DR. BROSSARD: Thank you. Anybody else? Go ahead.

MS. MCNEAL: Meida McNeal with the Department of Cultural Affairs and Special Events in the City of Chicago. I would say a couple of the challenges with the program that I have been working on, Healing Arts Chicago, one would be just the scale of the cross-sector collaboration between departments, Department of Cultural Affairs, Department of Public Health, and then a sister agency, who is within the city system but has its own ways of working city colleges. It was amazing that everyone said yes this pilot of training artists to be community health workers and apprenticing them in city mental health centers but very much always trying to get our project timeline, keep it on track when all of these sister agencies and departments do things differently.

I think really getting the buy-in at the level of the clinics themselves to work with artists has been a really ongoing process and challenge of understanding art is labor, art as having value as part of healing practices. I think those are some of the things that we have been navigating through.

DR. BROSSARD: Thank you. Anybody else? Go ahead.

MS. ONWORDI: Hi. I am Justice Onwordi, Colorado Blueprint to End Hunger. One of the challenges that we came across was some of that cross-sector collaboration around who is invested in the project. We wanted to include community and we also wanted to include state agencies and everybody else in between.

I think originally, we started with people who are food insecure. What should we do? And when you bring all these voices into a conversation, things get wild. Everyone is thinking different things. Everyone has a different idea.

It also derails what she was saying like the timeline of what you are trying to do, how you can structure your work. We have shifted into here is a plan that we have and who are the initial main stakeholders and then we bring it to them of here is an idea. What do you say? What is your feedback? What is feasible and what is not? And then continuing the process of feedback of we have

had heard from you. Now, we are going to bring it to the next group and it has helped us organize our structure and our work and let everybody still have a stake in what we are going to do and feel like they have ownership in the projects that we have. It is really still bringing in that collaboration but trying to decrease the chaos that can ensue when we have one idea that can go different directions.

DR. BROSSARD: A lot of project management skills then. A lot. I think I saw another hand up.

DR. LEVINE: Adam Levine. I am from the public health school at Johns Hopkins. One thing that we also talked about at our table that Corinne emphasized quite a bit is really the E in SEAN, which is they are really focused in Cambridge on even just very step one-half of just getting people to realize that there are these kinds of diverse forms of expertise that are not necessarily standard credentials. That needs to be valued, legitimized, given space to be shared and things like that. To me, that is another really big takeaway is just that even just recognizing and looking for and trying to elevate diverse definitions of expertise to solve problems.

DR. BROUSSARD: Thank you. That actually echoes something that was discussed at our table when we were - that there is all the amazing expertise on the ground that

is not actually leveraged or recognized for others that actually utilize in a productive way in another setting, another location geographically and that maybe SEAN could have some part of putting all this together in some sort. We have not really solved all the issues but this was something that was shared at the table, which leads to a question that hopefully you are not going to say anything. What is it that you have for how social and behavioral science could help if it all and be honest?

COMMISSIONER STEGMANN: Lori Stegmann, Multnomah County, Portland, Oregon. I am in awe of all of these experts and academia. This is kind of an unusual setting for electeds and politicians to be sitting in a room with brilliant minds like yours. I just think that there is an opportunity for academia to work more closely with government and then I also hear you saying that you would like access more to the frontline people and meeting people where they are. I think that there is an opportunity to marry those two worlds and that that would probably get us better outcomes if we understand intellectually, scientifically what are best practices. But then we also know we are humans and that while something in theory sounds really great and we try it and we are like that did not work because other things mentioned like human behavior comes into it and emotion. And I think that that is what

counties - we are the largest provider. We are a safety net provider and logic does not often play into the communities that we are serving because there is racism. There is poverty. There is mental behavioral health. There is substance use disorder. There is trauma. There is pain. There is racism. All of those things come into play.

I do think that there is a real opportunity for SEAN to be more integrated into government and politics and for government and politics to be more integrated with SEAN.

DR. BROUSSARD: Thank you. Skip and then in the back.

DR. LUPIA: I wanted to agree 100 percent with what you were saying. From the academic side, in just hearing all these stories, I think there is a correction that the academic side can make. I think we often walk into the setting thinking that our job is to give the answers or we already have the answers when we walk in the room. I think our job is to walk in and ask questions and just listen and listen. And then when we can confirm that we understand what the situation is then convey some of what we know and co-produce it together.

But I do think we miss a lot of opportunities because we think our jobs provide answers. I really think until you get multiple rounds of questions that the

efficiency of that is not as good. Of course, social and behavioral sciences would tell us why that is true.

PARTICIPANT: Thank you. I am (name) from Howard University. I think my question is really happy to discuss with you all is there is distrust from community members, marginalized community academia, but also I think there is distrust from policymakers with academia. For example, we have been doing a project on healthy home programs. We want to see how it is implemented from a marginalized community perspective, but we also want to hear back from policymakers. What is the challenge for you to effectively implement this program?

We did a ton of work with community organizations and interdisciplinary research as well. But I think it has just been very difficult to talk with policymakers. Although our aim is not to finger point at anything but because we want to reflect what is the best practice from a marginalized community perspective and then to see how that can inform on health for most policy implementation. That is my challenge.

DR. DUNAWAY: Hi. I am Michael Dunaway. I am at the National Institute of Standards and Technology. I lead the Smart Cities program for NIST. Here is a problem we are wrestling with. NIST is a technology organization. Standards and technology are in our name. Smart Cities is a

huge systems engineering challenge because it cuts across the built environment, the natural environment, social economic across the entire spectrum if you are going to build a real smart city with the advocacy that you want.

I want to reflect back for a second on Secretary Shah's comment about self-interest. We do a lot of modeling and simulation in this world in the work that we do in IOT systems and integration of critical infrastructure systems and the intersections between separate sectors of the city's infrastructure. I would like to see a model of self-interest and how you rather than trying to convince partners in a public-private partnership not to forsake their self-interest and instead move to the common good, which most people do not do or they do it in varying degrees. Instead understand where self-interest intersects. What are the points of inflection between an agency's self-interest, individual's self-interests, and would it be possible to model that so at least a community could understand where its political and economic vulnerabilities are the way we model critical infrastructure systems to understand infrastructure vulnerabilities? There is a good challenge for the social science community. I could really use something like that.

DR. BROUSSARD: This leaves me not much time to answer. Yes, a challenge. And hopefully, somebody will take over that challenge and answer.

We will actually conclude the discussion at this point. I want to thank everyone for having participated and provided so many insights. We have recorded those conversations. Hopefully in the next few weeks, we will be able to meet, analyze, find common themes, and be able to come back to all of us to provide more food for thought. But at this point, I would like to actually leave us time for lunch. We will join again at 1, I believe. Thank you.

(Luncheon recess.)

Session 2: Transforming Future Resilience

Agenda Item: Panel 2: Transforming Future

Resilience

DR. BRUNSON: I would like to welcome everyone back from lunch and everyone online who might be joining us at this point. We will now begin our second session, which is entitled transforming future resilience. My name is Emily Brunson. I am a professor of anthropology at BYU. I just recently moved there, and I am very excited to be back home in Utah. I am also a member of the SEAN Executive Committee.

Like Maria said at the beginning, I would like to say that I am also a student of actionable research and I hope that we all are and that we can be through this session.

The pandemic made it clear that traditional emergency management alone is not enough for prolonged and evolving crises. Moving forward, we need continuous cross-sector planning that brings together health care, social services, public health, and many other services into a unified framework.

Establishing cross-sector engagement before a crisis is critical to this though. As many of us know, during COVID, it is very difficult to do when an event is happening and people are going a million miles an hour in

different directions. Having things set up beforehand really enables us to be more resilient and effective in our response.

This panel discussion particularly will delve into what it could look like to build and maintain these systems as a cornerstone of whole of society resilience and imagine what a unified proactive vision could be. Where we were dealing with the past in the previous session, we are going to deal with the future now.

Each panelist, as we begin, will present and then we will begin a moderated question-and-answer period. In the panel, we will discuss strategic approaches that enhance community resilience by fostering integration, responsiveness, and sustainability across various sectors.

The panelists of which we have three will each share their vision for key aspects of future cross-section investments and then engaged in a forward-thinking dialogue that balances creativity with practical solutions for future challenges.

I am going to save the instructions for how to handle Q&A until we get to that point. But right now, I am going to turn it over to our first speaker, Manisha Juthani. Manisha, over to you.

DR. JUTHANI: Thank you so much for the invitation to be here with all of you today. My name is Dr. Manisha

Juthani. I am the Commissioner of the Connecticut Department of Public Health. As a background, as I said, I am an infectious disease doctor by training. I was at Yale for almost 20 years and rose through the ranks as a professor of medicine and of infectious diseases.

My research focus was largely in the area of diagnosis, management, and prevention of infections in nursing home residents. And as January, February, and March of 2020 came upon us, the impact of COVID-19 on older populations and those particularly in nursing homes became very apparent.

One of my roles in academia I felt was to try to bring expert voices to the public space where experts should really be conveying information when it comes to the public trying to figure out how to make that information relatable to them. I did start to do that both locally and nationally through the pandemic because we obviously had this infectious disease that was upon us and people were looking to people who could provide guidance.

In the context of that in December of 2020, indoor dining was open in Connecticut. I had a colleague who asked if I would be willing to sign a letter to the governor asking if indoor dining could be shut down. I decided to sign on to that letter and Governor Lamont got that letter from a number of Yale faculty and thought it

would be advisable to meet with us. There were eight of us that were brought on to a call with him in December of 2020. At that time, after a number of my other colleagues spoke, I was the last to speak.

And I shared simple stories with him of patients who I was caring for, people who never left their home. An older woman whose son went out to restaurants, brought a friend over for dinner once a week, both of whom got COVID. They never got hospitalized but the mom was the one who ended up in the hospital. These stories ended up swaying the governor and asked me to join one of his press conferences. After I joined his press conference, I advised people because I firmly and still believe that health is not partisan. People just need information to make the best choices they can for themselves.

I had a feeling he was not going to change the policy decision on whether restaurants would be open or not. But I felt it was important to advise people not to go. The restaurants protested after that in front of his mansion. The policy was not changed. And six months later, little known to me, they asked me if I would be the health commissioner in the state. That is how I ended up in this role. This was not a journey that I expected or was anticipating at all.

I came into the job when few people in the fall of '21 - I started in September of '21 - were interested in entering the public health governmental workspace. But for me, this was a chance to actually translate all the things I had done in academia into real life practice and to actually try to influence things on the ground in a way that could be meaningful.

I came right before the Omicron wave. And I have been there now for three years, starting my fourth year. There are a few things that I want to just touch on in terms of the things that I see going forward. When I came into the role, there had been three different commissioners in my seat basically in a year and a half period of time. I was the third to come in. In that period of time over the couple of years before I came into the role, what was very clear is that if you do not have effective infrastructure within your department, there is no way you can do any public health.

What do I mean by that infrastructure? That means the simple basic things. Sound legal advice and a strong legal team, IT, HR, fiscal, paying your bills, being able to contract, communications. If you do not have that investment in your core operational support services, you can talk about public health all you want but getting money out the door, doing the things that we need to do is all

that more challenging. Thinking about the future and where we need to invest, having that core structure in place, knowing that we are probably going to go up and down in our funding cycles for ever more. We need to be able to scale up and scale down but you need that infrastructure in order to be able to do that.

The second point I would just like to bring up is that in addition to having that infrastructure, we heard a lot about that engagement with other partners and other stakeholders whether in governmental space or outside. But what I would say particularly in the governmental space is making sure that those partnerships with your colleagues are alive and well within state government particularly because when it comes to mobilizing, you need to be able to do that quickly.

And one of the ways that you do that is through tabletop exercises, is through drilling a variety of things. For example, what do I mean by that? Let us take H5N1. We have a very well-established collaboration with our Department of Agriculture. It starts out with a few missteps around vibrio and shellfish in Connecticut and safety around them. But we have a memorandum of understanding that is on the books. We collaborate every year with warming waters. We have had more vibrio cases in

the Northeast. But we do a lot to try to protect people from that.

We are planning for H5N1. We have no cases in cattle, poultry, people right now. But what if we do? We are having a tabletop exercise to plan for that to be able to plan for what is that going to look like. We do joint interviews together. We had a raw milk outbreak of Campylobacter. Again, we work together hand in hand. And that type of really, I think, from the military basis of incident command and tabletop exercises and knowing how to get right back into ICS, Incident Command System, that type of thing is what is going to prepare us for whatever comes next. And you cannot just erect that when a problem happens. You have to have that in your blood and know how to do that on a regular basis.

Those are the two main points I want to bring up in terms of where I think our resiliency and our ability to respond to things in the future is going to be based on is if we have financial investments into our workforce, into our infrastructure, and then being able to plan and drill for that for whatever is going to come next.

With that, I will turn it over to Quinton.

MR. ZONDERVAN: Thank you. My name is Quinton Zondervan. I serve three terms on the Cambridge City Council in Massachusetts. My background is actually in

software. A lot of people are like how did you end up on City Council. I am also a climate activist. I became aware of climate change when I was a freshman in college. To put these two things together, what I realized was that we need to re-program our society to deal with the challenges of climate change.

When I joined the City Council, I was focused primarily on enacting climate change policies but then of course in 2020, we get hit with COVID. I have to shift a lot of focus to supporting our residents and our constituents in the community dealing with this crisis.

And what we realized very quickly was that a huge problem was unhoused, people who did not have shelter. The city was not prepared to deal with that because the minute that COVID hit, our existing shelters had to be what they called de-densified because they suddenly could not have as many people in the same shelter as before, which means we did not have enough space. We had to scramble to find more space. To Manisha's point, nobody had gamed this out before. Nobody had sat down and said what happens if we cannot put all our people in shelters anymore. And the solutions were not easily found.

We proposed at one point that we should take hotels because the hotels did not have any guests so why not use those for shelters but there was resistance to that

idea. We ended up commandeering the high school gym and turning that into a shelter and that was challenging in a lot of ways. And ultimately, the city over the course of the pandemic ended up creating a permanent new shelter as well as a second one that was created by a nonprofit organization.

That brings me to the community because the government can only do so much and the community itself was responding as well. And one of the great things that came out of the pandemic was the HEART program, the Holistic Emergency Alternative Response Team. That was a community-based organization that formed to provide emergency response to people that was separate from the police. There are many reasons for that but one of them was that a lot of people were afraid to engage with the police. When they need help, they do not want to call 911. That means there is nobody there to help them.

It was incredibly difficult to get this program off the ground because there was intense resistance within the city government. What is this weird thing that is coming out of the community? It is not professional. We do not want this. And eventually they realized that they had to do something and so then they just co-opted the whole thing. They just started their own version of it that was directly copied from what the community was presenting but

was not exactly the same and obviously did not have the necessary distance from the police.

It was really challenging to try to navigate that and to support this organization from the council. And ultimately, we were able to get financial support and today they are receiving some funding from the city government but primarily they have it to self-fund and self-organize to come into existence.

In terms of looking forward, I think we really need to strategize about how can we create more organizations within the community that are supported by the government but they are not the government. They are not part of the government. They are community-based, community-run, supported by the government because that will significantly enhance our resistance because people in the community are on the ground. They are directly in contact with the other members of the community that you are trying to serve.

We saw this, for example, when we started COVID testing and then COVID vaccinations and very quickly -- Cambridge is a pretty small city, 120,000 people. But very quickly, we were able to diagnose that we were having disparate outcomes. In the poor communities, in the black communities, people did not have access to testing. Later they did not have access to the vaccines even though we

were making it available to everybody but there were structural barriers for people to access those services.

One of the best, most effective ways that we were able to mitigate some of that was by engaging directly with community members who could go door to door and talk to their neighbors and say have you gotten tested. Can I give you a ride to the testing location? Are you concerned about the vaccines? Why? Here is some information.

Again, institutionalizing those practices but not bringing them into the government, leaving them in the community but supporting them so that the next time this comes up or anything like it, you have that infrastructure in place so you can mobilize it.

DR. SCHOCH-SPANNA: Thanks, Quinton. I am Monica Schoch-Spanna. I am a medical anthropologist and up until October, I was with the Johns Hopkins University School of Public Health. I am now at the Texas A&M San Antonio University where I am a professor of community health.

The composition of this panel is really great because we heard about the importance of a strong public health infrastructure, the importance of community. I am going to tuck in the university. This works out very nicely.

If we are going to be resilient to future epidemics and pandemics, we really need systems, public

health systems and I mean public health in and outside of health departments with people who are practiced at connection, collaboration, communication, and cultural humility. We need to have systems bursting at the seams with this type of workforce.

But if you listen to the calls to modernize our public health infrastructure, there is a lot of emphasis and rightly so on epidemiologic surveillance, laboratory capacity, and informatics and that is absolutely critical. But we also need an ample, able, and sustainably resourced army of communicators and connectors. We need social media technicians. We need community engagement strategists. We need risk communicators. We need public information officers. We need community health workers and so on. Historically, if there is a portion of the workforce that has been under resourced in an already under resourced infrastructure, it would be this.

Now, I do not feel there is going to be a magic wand and suddenly we are going to have this army, which would include applied social and behavioral scientists as well who have authentic relationships with community leaders and influencers and that is where the university steps in.

I want to talk about a project called CommuniVax in which social scientists, public health experts,

community advocates, and health care providers came together. This was a national knowledge to action network, focused on COVID-19 vaccine equity. We had a national working group but we were active in six states. We used rapid ethnographic research and community engagement techniques to try and advance vaccine equity but also helps for development of collaborative public health systems.

I just want to spotlight our team in Idaho because I think that this narrative will help you understand the importance of and the value of partnerships that involve public health and the community and universities.

Our team was in Southeastern Idaho, operating in the small rural towns of American Falls and Aberdeen, Idaho. And about a third of the population was comprised of Hispanic communities. And what is interesting about these communities is they evidenced a higher rate of willingness to get vaccinated than comparable communities in other parts of the state. And why is that so? I want to tell you a little bit about that.

It is because the Southeastern Idaho Health District adapted its vaccine promotion and delivery strategies that directly address the concerns, the values, and the material circumstances of these local Hispanic residents. What did they do?

Just a few examples. A flyer explained in Spanish, where and how one could get the COVID-19 vaccine. That was distributed at Hispanic grocery stores and local farms where Hispanic individuals lived and work, many of whom are undocumented. Undocumented individuals, however, were not too interested in going to get vaccinated at a government office where the public health department was located. The health district changed its messaging to say we do not care about documentation status. Just come get vaccinated.

They also changed the language in their intake form that took out the notice that information would be shared with insurance providers because that was the deterrent. People who are documented may have insurance but undocumented do not.

And apart from removing these culturally relevant disincentives to vaccination, they also acted upon community-relevant incentives. And within the local Hispanic communities, there was a really strong focus on work, hard work, getting food on the table, and holding onto a job. That was expressed as the reason to get tested and vaccinated.

The health district said okay. We are going to take the vaccines to workplaces, to farms, and to food processing plants where the majority of workers were

Hispanic. This was socially relevant and logistically convenient for the workers' intervention. It overcame access issues.

Now the back story to this is the Southeastern Idaho Public Health District was meeting regularly with the CommuniVax Idaho Research Team and the research team, which had two principal investigators, also had 20 students, most of whom who came from the local Hispanic communities and were bilingual. They were ambassadors on behalf of CommuniVax and by extension the health department.

In these conversations were discussions about perceptions within the local Hispanic communities about getting vaccinated, what the experience was of the overall experience of living through the pandemic.

What we have is a - it is just a concrete example of how universities, in this case, with social scientists can partner with health departments and with communities to go together go after the common good of vaccination.

What is interesting too about those students is because of that research experience, many went onto intern at the health department and also at the federally qualified health centers. There were others who expressed interest in health-related careers.

I guess the forward-looking lessons from this CommuniVax experiment are that these university, public

health, and community partnerships really can strengthen resilience to epidemics and pandemics. They do so because they can meld together experiential community-held knowledge with expert-held knowledge, in this case, social science and public health. And they can provide just-in-time interventions that have been built on the bedrock of prior trust and collaboration and also produce the next generation of professionals who are sensitized to the importance of collaboration and cross-sector engagements. Thank you.

DR. BRUNSON: Now, we are going to turn to the question-and-answer period. We have a shorter amount of time for this so just so you all know. We will again ask the in-person attendees to use the microphones at your tables to ask questions and virtual attendees should submit questions using the Q&A feature on Zoom. A SEAN staff member in the room will then ask the questions on your behalf. We are not going to be able to answer all of them potentially but we will try and do as much as we can. I would like to open that up for any questions that you might have.

DR. GOLDMAN: Hi. My name is Lynn Goldman. I am at George Washington University. I am wondering - and the title of this is future resilience, but what about our resilience today in your view where you are? Is your

community more resilient today because of things that were learned during the pandemic? I certainly feel I have seen here in DC where I live, that there was a huge shift in the way that public health worked here in terms of modernization of data systems and just many things that had to change overnight but I think (inaudible) us now that we are actually more resilient but I do not know if this is a national thing or not.

DR. JUTHANI: I would say -- I can speak for my one state. I would say that we are definitely much better off than we were before. The investments in modernization that have happened. We have a public-facing dashboard that has COVID data, flu data, RSV data that we maintain and update every week that people can see where trends are at all times. That type of thing was not even available before the pandemic.

I think the other thing is what we saw was that as COVID was starting to settle, mpox came. Granted that was a much smaller situation. It was much more directed in terms of the outreach but we had to do all the same things that we did the first time around whether disease surveillance and making that publicly available and people could see where things were happening whether it was vaccinations and getting them rolled out in places. We still had our vaccine vans, for example, like what Quinton

was talking about, going into neighborhoods, bringing vaccines to people. We had these yellow vans that went around the state. They were still going around for COVID although less important at that point. But we were able to switch those contracts, expand the scope of work, and add on mpox vaccines. We were able to do that. We were able to do treatment and get TPOXX and other things into the communities where we needed to see it. Just looking at mpox as a mini-subsequent event that happened to see how quickly that was able to roll out, I would say that it has translated.

We have had multiple nursing home closures. We have had strikes. We set up ICS. Everybody had a job. People knew what they had to do. We have had nursing homes that we have had to basically empty as the health department and send people to other places without a lot of trauma of going through that kind of change. It has translated to many different aspects of how we function as a public health department.

Are we better off than where we were when we started before the pandemic? I would say absolutely. Do we have a ways to go? Yes.

MR. ZONDERVAN: I agree with Manisha that we are definitely better off. I do worry though that in some ways, we are always fighting last year's war. I worry a lot about

climate change and we saw just recently with the hurricanes in Florida. One of them veered off into the mountains in North Carolina and devastated those communities because nobody there had ever thought about what happens if a hurricane comes through here. I think we still have a lot of different scenarios to prepare for and I do not feel comfortable that we are doing that preparation.

Even with COVID, we really got lucky in the sense that the vaccine technology was in place and we were able to turn around for the first time in human history a vaccine to a novel disease in less than a year. But that is not always going to happen either. I think we have a lot of preparation to do and we are not doing it.

DR. SCHOCH-SPANNA: Our colleague from the DC Department of Health was heard earlier and she asked the question of the first panel. Are those partnerships that emerged during the pandemic - are they still there? Are they still strong?

I will take the case of our team in Maryland which partnered with local entrepreneurs, that is, barbers and hair stylists. And barber shops and hair salons became these de facto community health hubs where the health professionals became the sources of trusted information about vaccination and the response to COVID.

Now those relationships and that system are still in place. It has involved the university, the local businesspeople, and the health system. I think it is Luminis now and other partners.

But the PI for that system is still hitting the pavement, trying to find funds to support that. Dr. Steven Thomas, who I referred to - and he has warned that there is a risk if we do not maintain these relationships, which is we have now proven ourselves as public health professionals. But if we do not continue to prove ourselves, we will lose that trust. We will go backwards. With this resilience building comes the risk of not sustaining the relationship. There are costs. It does not go into a vacuum. There are social interpersonal costs of not continuing to maintain those relationships.

COMMISSIONER STEGMANN: Lori Stegmann, Multnomah County. In a lot of ways, I feel like we have not recovered from the pandemic, and I think others probably would agree but specifically around the issue of homelessness. As public health advisors and professionals, our public health made a decisive decision not to move people who were experiencing homelessness to stop the spread of COVID, which meant that people were told to shelter in place, to remain in a campsite, to not have those campsites swept.

Some of the remnants of those policies are still enforced. Some are not.

But I am just wondering what this panel thinks about the impact that COVID had on our houseless population and how we can overcome it. Do you see remnants of COVID in our houseless crisis right now and if you have any ideas about how - things have just changed so dramatically. Just any thoughts that you would have about where we are today is a result of what has happened historically.

MR. ZONDERVAN: I am not sure about the relationship between COVID and the unhoused crisis. Obviously, COVID had impacts on unhoused people but it did so across the population. We had a housing crisis certainly in Cambridge but in many parts of the country before COVID hit and we have an even worse housing crisis now after COVID. Some of that is - you can blame it on the pandemic supplychain disruption and inflation and all these other issues that make housing more expensive. But fundamentally, it is a policy problem. We do not have a housing-first policy in the United States or in any community that I am aware of in the United States that is effective.

We are just continuously reproducing this problem of people not being able to afford housing because it is a commodity market and then not being able to deal with the fact that all these people are living in the street.

The answer that I learned as a city counselor was that we need housing first. We need to be able to put people into housing. And in the individual cases where we were able to do that through my office and through the infrastructure that exists, we usually have very good outcomes because once someone is stably housed then they have time and space and resources to be helped with other issues. But if they are living on the street, it is very difficult to get services to them and to help with them other aspects of their health and safety, including of course when there is a pandemic. I think it is a little bit of a separate issue and it is really a gaping hole in our resilience if we allow it to continue to fester.

DR. BRUNSON: I think we are at time.

MS. FOWLER: We have an extra five or ten.

DR. BRUNSON: Okay. Go ahead.

DR. JUTHANI: I think in Connecticut, we did similar things to Massachusetts where unhoused people were put into hotels. Actually, it was a better situation for some period of time for the unhoused where we had funding that could support that where there were a lot of people that actually had better housing for some period of time in the pandemic and thereafter where we had funding for that. I think the unrolling of that as funding started to

dissipate started to reveal again the underlying unhoused problem that we all had.

I think one thing that we, as health and human service commissioners in Connecticut, have all said and all are working with our Department of Housing in the governor's office is that housing is the most fundamental health initiative in a way because you cannot send your kids to school. You cannot take care of what meds you need to take, where they are going to be, if they can be refrigerated, whatever. All these things that are the reality of health care without housing.

There has been a focus on trying to particularly get families and children who are couch surfing and the like housed and that is, I think, a lot. If there is some silver lining to what has come out of the pandemic, I think, is a refocus on that particular issue. I think we have a ways to go but there is definitely a recognition of it and time, space, and money being put to trying to solve it.

DR. BRUNSON: We had one more question in the back.

DR. ANGELL: What I feel like I keep hearing is that the crisis as we know sharpens the attention and a lot of the seeds of what we want to continue to build on for resilience was the crisis. Many crises along the way

continue to help to build resilience because they continue to test the systems. Manisha was talking about mpox as an example. Monica, you mentioned the barber shops and hair salons. I first learned about that when they were doing blood pressure monitoring and blood pressure control. These are models that have been out there. It is a question of whether or not we stimulate their use.

I think, Quinton, you were talking about climate as your motivation in this space. It occurs to me that climate is going to be the thing that provides us with multiple mini-crises along the way. Everybody is going to have heat waves along the way.

I am just curious if you in your positions have really thought about how you would turn and reshape what we talk about public health being, which is typically we are there for the long run to assist them that is realizing it has to be uber active all the time to be really good when it has to be active. How do you create systems that are not necessarily incident command systems that turn your whole department upside down. You cannot be in incident command all the time. But how can we be ready for a crisis and active in mini-crises all the time? How can we do that in a way that allows us to do our work well? Any thoughts?

DR. SCHOCH-SPANNA: This sort of dovetails with the earlier conversation. We need to rethink crises or what

constitutes a crisis for the first thing. And Lori just said, we really have not recovered. I challenge the public health emergency management community to really think about what recovery means. What do recovery and resilience mean? Because relative to COVID-19, if we saw the epi curve drop and the GDP curve go up, people seem to think we did recover. As we hear, no, we are not. Housing still sucks. Access still sucks. Food insecurity still sucks. I think we really need to really push on the social determinants model a little bit more and rethink what constitutes recovery from a crisis. It should include learning about our system failures and being prepared for the next crisis. I am not running a health department. I have not been on a city council. I turn to my colleagues.

MR. ZONDERVAN: When I first got into climate change activism, I would say to people we need a department. And the analogy that I used was fire departments. One hundred years ago, there were no fire departments. A fire breaks out. It is a community emergency. A bucket brigade gets formed and people are doing what they can to prevent the fire from spreading. Eventually, people realize that we need a professional, ongoing function to protect ourselves from fires and fire departments were created. Today, we just take it for

granted that there is a fire department in every city and town.

We need a department of resiliency. We need some institutional home where its people's jobs to figure this out and then build out that infrastructure into the government systems, into the community so that when we are faced with a crisis, we are better prepared and then do the learning and bring in the academics, the universities to make sure that we are scientifically examining these outcomes and saying maybe if we do this, we will have an even better outcome.

DR. JUTHANI: I would just add that FEMA emergency management systems that in state governments now, at some level, are trying to fill part of that role. It is not all of it. But around resiliency, there is some attempt at that right now and it starts from these moments of crisis that became evident that we need to respond and be able to have that ability to respond and do it in an efficient way.

I think as health departments, one of the biggest challenges is that we are often the educators. We are often the people raising the information on why heat is a risk. What are the consequences going to be? But we do not have the levers to actually do the things that might actually change the response to those things. We may have a seat at the table with emergency management, with environmental

energy protection, with the other people who are in that space but we do not necessarily have the levers to actually make the change.

What I see is we have to continue to serve that educational role. We have to continue to say this is how it is going to impact health. This is how it is going to impact lives. And that is the consistent, persistent work to your point on building resiliencies that - for example, around heat, we have a CDC grant specifically to work with local health departments so they can help do some of that education with people on heat risk and what should they do in the setting of a heat crisis or something like that. But it is a challenge in terms of how you operationalize that and how you do that.

I was talking to my colleague from Louisiana once who said that they literally were in incident command for 300 and some odd days from one hurricane to another hurricane to another event to another event. And some areas in our country have been like that often for climate-related issues. Then there is this fatigue on that too. How can every day be an emergency? And then you sort of recalibrate. What is really an emergency versus this is just what our reality is now? That is part of the challenge.

I would say in my opinion that climate change is here. We are seeing the impacts of it every day now. We can do the things to try to be prepared and respond better but it is already here. We are already having to deal with it. We cannot be talking about what we were ten years ago. It is irrelevant now. Now that is irrelevant. What are we going to do going forward?

MS. FOWLER: I wanted to raise a question from our virtual audience that I am going to tweak ever so slightly to align with our conversation. What is the role of community-facing organizations even down to K12 schools, those that really interact with families and communities? How can they be part of the conversation of future resilience?

DR. JUTHANI: One of the things that came out of COVID for us was a partnership with our State Department of Education. There was a meeting every single week with superintendents, principles, the health department, education department, state of affairs. Where do we stand right now? What should they be doing on contact tracing? Where do we stand on vaccines, et cetera? That type of meeting is still happening.

When we started the last several school years - in the last couple of years, we actually did a press conference like respiratory resiliency, respiratory virus

preparation, starting out the school year being healthy. That weekly meeting - I may not be involved in it as closely anymore. Our commissioner of education may not be involved. But the state departments are meeting with principals, with superintendents, with school nurses to be able to help prepare and that is just one example of how partnering with people directly on the ground who are actually involved with that work day to day is continuing to work and it is continuing to help keep people who can actually advance the work on the ground engage from the beginning.

MR. ZONDERVAN: I think one of the main challenges to better resilience is information and transmitting information to people. And the schools are an obvious channel for that and they are really massively underused.

For example, even today, we do not have a high school curriculum on climate change. Not just from a scientific point of view like what is it, what is happening, but also from a preparedness and resilience and response point of view. There is really almost no education happening in our schools on how people are supposed to respond to this crisis and how to deal with it.

One of the programs that we were able to start - in Cambridge, I was part of this nonprofit called Green Cambridge. We started a program to train high school kids

on planting and maintaining trees and then we were able to make that service available to residents in the city. One of the unexpected benefits of this program was that it provided an outlet for kids who were learning about climate change and environmental degradation to actually do something about it in their own lives.

It is really critical to again connect to those community organizations and coordinate with them so that there is that dissemination of information about what is happening because a lot of people are not aware of these crises or they are not aware of how it might affect them locally.

When I first got involved in climate change at the city level as a private resident, I joined this committee that was advising the city. They asked me what I wanted to work on. I said what are you doing about preparedness. That is what we called it back then. And they said nothing because we did not want to discourage people that it was too late to prevent.

The city actually did a vulnerability study to figure out what specifically are the impacts that we should worry about in Cambridge. We determined that it was primarily heat and flooding. That allowed the city to start preparing and making adjustments to mitigate those impacts but also allowed us to communicate with the residents why

are we doing this. Why are we putting in place more tree protection policies? Why are we adjusting the way that we deal with flooding and why are we doing sewer separation? There are all these downstream things that we need to do that people in the ordinary course of their life are not thinking about and need to be communicated about so that they understand what is going on because otherwise they will protest and object and get in the way when in fact you are actually trying to help.

DR. BRUNSON: Thank you and thank you so much to our panelists for sharing their expertise and both to the in-person and virtual audiences for their thoughtful questions.

I think we can all agree. This is a complicated situation. There is not going to be an easy solution to this because it involves people and many different organizations, thinking about departments of health, city councils, universities, K through 12 schools, community organizations, all of these different things. Both our strengths and our weaknesses are that we are dealing with people and people coming from different ideas and different places and bringing them together.

But I think moving into our next tabletop discussion, which we will go to in just a minute, the critical thing here is that we keep working together and we

keep trying and that we do not get disenamored with what is going on and say just forget it. It is too complicated to figure out because I think that tends to be our tendency sometimes to give up. It is to not to do that but it is to really think and to have situations like this where we can think outside of our own silos and come together and share ideas.

We will move from here into the tabletop discussion, which I think we will get to some of this. I would like to hand it over to Bridget Kelly to introduce that for us.

Agenda Item: Instructions for Tabletop 2:

Identifying Actions

MS. KELLY: That was great. I was just about to suggest that we do that and then it just happened. That was great. Thanks to everything that has come before. That is - thank you. My name is Bridget Kelly. I am with the SEAN team. I used to be a staff member of the National Academies now. I work as a consultant. I am part of the Washington State contingent now, so I have also moved to the other Washington. We are best represented.

What I am going to get you ready to do next is to really take the push that we were just talking about, the charge to think about the future and put it on all of you individually and then collectively your tabletops to think

about it. We have a little activity ready for you to do, which is going to start with just some individual time to think through and generate some ideas. We have a little worksheet that I will talk you through that is going to help structure that for you so it is not entirely open-ended. You are allowed to follow it as loosely or closely as you want to.

A couple of things to just have in mind as you do this. It really is encouraging you to take everything that we have been talking about and put it back into your own context so really thinking about your role, your community, your scope, what you have control over, your sphere of influence.

That said, the scope is up to you. You might want to think really ambitiously, really huge, and what is my place in the whole of society or it might be I am just going to think about one other related sector, one next relationship, next connection, next bridge to build or you can do anything in between those two things.

But what we are hoping for is that what you will have in mind is what a different future could look like so following that panel of whether it is a different future on a small scale or a different future on a big scale that you are thinking about that.

We have a little worksheet. I will just talk you through it. We are going to be at the tables. The facilitators are going to be there, but they are also participating. This is a little bit more of just a collective self-facilitated discussion that you will have first with some individual time. I will be walking around. If you have questions then I will be available.

But to talk you through it. The first page is to help you think about actions and we prompted you. It prompts you to think about things that you might keep doing so a little bit of affirming thinking, things that you are like this is good. This is on the right track. We want to keep it.

Once you have done that, then you move onto what you might want to start doing. This is something that either you might want to make a change to something you are doing, something new that you want to do. And then the last column is stop. That is often the hardest when I do this exercise. The hardest thing to do is think about what you might want to stop. And this is not saying completely rethink your mission or your purpose or get yourself fired because you rewrite your job description. Although we are not going to share it with your boss. This is for you. You keep this. You do not leave it with us so you can write down anything you want there.

But at the same time, I really encourage you to use the stop column as a little bit of a mirror. It is really easy to think through all the things that we wish others would stop doing in order to make it easier to collaborate. What are they saying they wish you would stop doing? What is it that you are inadvertently doing that is making it harder for this future that we want to be the reality of the future? Big or small. Maybe it is a small reprioritization so that you can make room to start something. Maybe it is something that you now realize is not as effective as it was. We are building from easy to hard. You do not have to do it in that order though. Stop is already coming to mind. Go ahead and start there.

And then the back of the page is just picking one of those ideas. The first page is just brainstorm. The back is just to take one and walk it through a little bit. Think what the goal would be maybe three years from now and then think about what you might be able to do in the next three months. And then the last one is just what you would do first. That is where you can go back to the immediacy. Who is someone you could call? What something you could learn about? What is something you could ask permission to do or give permission to do depending on your role? Something that you can do short term to feel like you are walking out of here with something interesting to do.

For convenience, we also put - this is about collaborations. At the bottom, there is a spot to just make note of any connections that you want to make or sustain, someone you met here in the room or just in general in your role. That is our way of reinforcing the theme of the conference.

Once you have had time to do this individually, then you will have some time. The facilitators will help just a little bit of sharing out of some things from this and then talking with others, maybe helping each other think through the ideas and making them feel more actionable and more real or do they need to be big or small. You can help each other with that.

We have a couple of - that is your main opportunity to share. The other opportunity to share is that we are going to put up some sheets on the wall over here for each of the keep, start, stop, and first step. If at any time during this process, you have a real gem and you really think it would be nice for other people to see it, we have some Post-it notes on there. They are colored coded. The codes will be on the sheets. If you want to jot something down and just get up and take a little walk and put it on the wall and then at the end of the day on the way out put some more, read each other's, take a little

time to do that. Those are the main sharing opportunities that we have.

And then once we have done at the tabletops, Emily is going to come back up here and help us through a conversation kind of in the way that Dominique did earlier, pulling things out and rolling them up to the conversation.

That is my instruction-giving speech for the day. Any questions? The Post-it sheets. We have a Post-it note on for each one. Green is keep. Yellow is start. Red is stop. And then blue is first step. It is okay if you do not follow the color coding but it is kind of fun if you do.

I will be circulating so if anybody needs any clarification or if you just need some cheerleading, I am also available for that. I will bring enthusiasm if needed to any table.

For those of you who are online, the worksheet is available for you to download but we also have a link that Chelsea is going to be sharing to some Google slides. For you, that is your opportunity to share. That is kind of your virtual Post-it note wall. You can be adding things to the Google slide and also working for yourself.

(Break)

**Agenda Item: Sharing Highlights and Facilitated
Discussion Across Tables**

DR. BRUNSON: Thank you, everyone, for engaging in this exercise and participating fully throughout the day. At this point, I would like to go around and hear from the facilitators at each table with a reflection from the activity and your discussion. We will go ahead and start at this first table with Skip.

DR. LUPIA: We had a really great discussion. I think if I was going to put a top on it, it is - I think from the Academy side, the job really is not to provide information. It is to serve as effectively as you can. A lot of times we create information that we think could be of use to policymakers but people are in the middle of trying to do things. And the information does not resonate. It does not really fit their situation and we really do not help them at all. Having really more of a commitment to think about service and what we are doing is how do we serve a moment, how do we serve a community, how do we serve a situation as effectively as possible and building from that, that is the center of it, not around need to be an expert I think is a key to advice.

In terms of service-based partnerships, we were thinking a lot about the value of local-level partnerships

and just again to be self-critical of universities, how little we know about the demand side of those things.

As we think about those engagements, having the needs and perspectives of the communities be the primary foci and maybe there is not even a secondary one. It is not really about you. It is about that moment and that service and then to the extent that you are developing evaluations and success metrics. It is focused on that. It is focused on what these folks are doing and that is how we know it is working.

We have sometimes an incentive to write a paper, check a box, hand it in, move to the next project. If we actually have a service orientation, that is not a great workflow. Again, we ought to at universities have more gratitude for what people are doing in every community in the country because it is really extraordinary work.

DR. BRUNSON: Thank you. Table 2.

DR. PLESCIA: We talked about a lot of things but one of the themes that I think was current across a lot of our discussion was this issue of communications and how we communicate better and particularly how we tell the story of what we do in public health better.

Two subcategories that came out of that. One, we have a fairly strong academic contingent at our table. We talked a little bit about what different academic centers

are doing around trying to really train the public health workforce to go out and be able to communicate better and communicate in the new modalities we have.

And then a second theme was this - this is around what we need to stop. We need to stop saying that the public has lost trust in public health because there is really not evidence that that is true and it is also potentially harmful to us making the case for the importance of the work that we do.

DR. BRUNSON: Thank you.

DR. LEVINE: We also had a great discussion and talked about a wide variety of things. The one thing that came up across - all of us are involved with different kinds of organizations. I am an academic but also run an organization. We talk a lot about what it is like day-to-day to run an organization, what it feels like, what sorts of challenges you face, what sorts of insecurities you might have and things like that, and what sorts of pressures you have as well as triumphs.

The one thing that all of us were thinking about was how do you appeal to diverse constituencies because what your community wants might not be what your funders want, might not be what your partners and various initiatives want and things like that. As a result, it can often feel like I am really letting people down. I think

Corrine really put this quite nicely to say that maybe that is true at some level. Regardless, you are still doing better than not doing anything. You are still doing better than what your opposition is probably doing and things like that and trying to really keep that in mind. I really appreciate that because it is just sort of on the day-to-day what it feels like to do this work. That really kind of captures it.

DR. BRUNSON: Thank you. Next table.

MS. FOWLER: I will highlight a couple of items from our virtual audience who did an activity similar to this. One of the stop activities that someone suggested because everybody else has gone with starting or keeping - someone suggested not hoarding resources within silos, which I thought was a really great point. And someone else suggested conducting research - to stop conducting research with a single hazard focus. But I think we could simplify that to stop conducting research with a singular focus so that it is more diverse in its outcome. I will pass it on.

DR. ANGELL: This is really difficult to synthesize because we have - we are coming from such different backgrounds. But I think thematically, there are two pieces. One is that we are all sort of thinking about transition and how to capitalize upon the information that we have gained so far not to lose it and then how to move

forward very functionally whether it is our personal transitions, whether it is government transitions that are going on around us. How do we use our tools like surveys to be much more focused on understanding what resilience means? How do we understand where we are now to create standards so that when we move forward, we are all moving forward and moving up rather than going sideways and in different directions? How do we capitalize and build on the really interesting things like surveillance innovations that exist but being much more razor sharp in where we go and leaving behind much of the administrative pieces and letting go some of that stuff that just gets in the way and makes us trip as we are walking forward?

DR. BRUNSON: Thank you. And our final table.

DR. AMMOURI: We had a really good conversation. We have different types of programs, but I just made note of the similarities that we had. What we wanted to keep and what we all found on our sheets was consistent communication within government and within our communities and offering resources that support our communities.

Start. We all said refining our objectives, which I thought was really interesting as well as formalizing processes and then increasing cross-sector collaboration.

And then our last one, which we had a more in-depth conversation, is how important it is to connect with

other jurisdictions who are doing similar work as you. How can we make that a priority in the midst of doing the work that we are already doing so that we are not duplicating efforts and we can learn from each other? I just found out Sean and I are also working both on an application and being done in very different ways and we can connect and find out how we can make things more efficient for both of our areas.

DR. BRUNSON: Excellent. Now, we are going to have a discussion for the next 15 minutes or so, thinking about how we can - what are the cross threads here? How can we move forward with this? One thing I would like to throw out there just to start off this conversation is thinking about communication needs.

One of the things that came up in our tabletop discussion, which focused on having this service orientation, was that there can be governments, especially local governments. There can be community organizations. There can be academics. And sometimes they do not communicate well with one another. For example, universities may not be able to communicate well what they could do. At the same time, local government offices or community organizations may not be communicating what they need, which means that usually you get, as we were talking about in our table, academics going in and saying here is

the solution to this problem. The community organizations and the government saying that is not even our question. How are we making this applicable in terms of communication? I suspect knowing some of the people on Table 2 that that may have come up in your table discussion as well. And thinking about Table 3, your day to day how to run organizations. There is a piece to that too. How do you communicate outside of those organizations to really make sure that we are working together that you are not being so siloed that the work is separate? How can we better communicate needs and what we can do with one another across all different types of organizations?

MS. MCARDLE: If you hang around me enough, you will realize that I communicate mainly in story form even though I have a bachelors in statistics. I love math. But I have learned that stories impact people more.

Any time I hear about homelessness, I think about - entry into public health was - when I was 4 years old, I attended the funeral of my 4-month-old baby cousin who died while homeless in a campsite.

When I think of resilience, I do not think of institutions. I do not think of governments. I think Shanda Gordon, the sister of that 4-month-old baby cousin, who woke up next to the dead baby cousin.

All this to say, broken institutions and broken systems create - a byproduct of that is creative resilient and resentful individuals who are not going to engage in system solutions that they have already proven that they do things without the system. They were forced to figure out how to do something without the system.

When I am hearing in these conversations, I am just like we need the community members in the room for these conversations. These are not going to be impactful if you do not have the humans in here because they are going to immediately deny what you say because they are resentful and creative because they were forced to be.

I think of - I should not say this in front of Dr. Shah, but the mpox response at the state level - it took us months to activate. I joke but it is serious that the gays had it. They were like whatever. Tell us where the vaccines are. We will get vaccinated. We do not need your response. We do not need the incident command team to be together. We just need to know where the vaccines are and where to get them.

As we think about ways to approach solutions, if you are in an insular conversation with the people in the room that you are impacting, you are probably going to be doing more damage no matter how smart or creative your ideas are because again you are dealing with creative,

resentful individuals who have been forced to be find resilience.

DR. BRUNSON: Thank you for pointing that out because I did leave out the communities themselves. I think this goes back to Monica's point earlier that you lose trust when you disengage or when you stop with those relationships. Critical to include those.

DR. ESPINOZA: Just building off of that, I do not think people have to start from scratch. If you have I want to reach this community, what should I do? Sometimes what you could do is just listen a little harder and be responsive. I am sure you have gotten emails from people saying this program is do this or that to me. What if you responded? What if you listened to what they were trying to tell you about the thing? What if you were curious and said instead of your first reaction being that could not have happened but being what happened? What could I learn more? There might be people trying to tell you things already that you could learn from, and you might just - it might be a lot easier to just listen and dig a little deeper and be curious rather than starting from scratch for some of these questions.

DR. GOLDMAN: I will amplify on that. That is exactly what I saw work pretty well in DC. One, the government did put together a lot of working groups. I

chaired one of them, one of about a dozen of them. And people from across section, across the community were brought in. Now everybody who is affected cannot be brought into the room. That is not real. But there was a lot of preexisting work.

And I think one of the things a lot of people do not recognize, particularly some of the people now talking about reforming the public health system, is how great it is, how the system cascades from federal to the state all the way to the local community in every single place. Are the local health departments well enough funded and supported? Do they have the technology they need? No. They are not. But are they connected? Do they know the people where they live? Are they a part of those communities? Yes. They are far better at communicating to the people in their communities. Somebody coming from Atlanta or even in Washington out of the Humphrey Building into Wards 7 and 8. No. That is not how you do it.

We also used preexisting processes. We had these clinical trials that we were doing on HIV/AIDS prevention within NIH support. They brought us into to do COVID vaccine trials but we already had a community advisory board from the neighborhood representing people who a lot of people believe will not participate in trials. They were happy to be in the trials. We were able to bring a lot of

people from a very low-income minority community into those trials because they already trusted us and they were already working with us. That was not built because somebody thought there would be a pandemic some day and you would need the vaccine. It was because that was the right way to irradiate HIV/AIDS and because there is parallel with some of these things. It does not have to be a pandemic to need to do that kind of work with your community to be effective in public health.

That kind of thing I think - I wish that there was a way, in fact, to our theme about communicating - I wish there was a way we could get people to understand that that is how things work and that it is a good thing, that it is effective because people are going why do we have all this federal money going into state and local health departments. This is a huge waste. I hear all this rhetoric because I live here in Washington. They just do not understand how public health works, including people who run hospitals. Huge health systems have all kinds of health degrees and titles but they have no idea about real public health.

DR. LEMOS: Thank you for that because my comment was going to be very similar. Two things worry me that we keep talking - using the word community -- if all communities are the same. We just have to communicate

better. Communities are very diverse. They disagree with each other frequently like we all do. It worries me. And the volume is very complicated. If you are going to build resources, I think somebody was talking about this today. You can put a lot of communities in the room and they are all going to tell you something different. How do you work with that? It is a very complicated issue. It is not a simple issue.

I am not in public health, but I completely agree, and climate is very similar. Cities are equipped to do that many times. CBOs are there to be able to aggregate impact. We do not have to talk to everybody to do good. I think what we have to do is to understand where the boundaries are and how we can smooth those boundaries. Scientists have a role. If you want to engage, you can. But you can also engage with people who are engaged and already have the trust. And there you sort of aggregate up the possibility of impact.

I have my favorite people who are practitioners in cities because they aggregate. They know what they are doing. They talk our language. They are actually us with some more obligation to do good in the world and therefore, they choose to work for the government.

I think that to a certain extent, we also have to be very realistic because the need is huge. It is

increasing. We have to scale up. We have to do many things at the same time across different sectors but also across different stressors. Primary health comes to mind because these are our communities are. There are ways to do that and we have to trust people who are already doing it very well.

DR. BRUNSON: I like that. I think it goes back to the idea of having a really big tent to look for solutions. And what I may be able to offer is different than what someone else may be able to offer but we are stronger together and able to do more together than apart.

We have two more comments on this and then I have different theme I wanted to pull out.

MR. ZONDERVAN: My new hat is that I am a policy director at Run On Climate. And we support climate activists running for local office and we support elected officials taking action on climate change locally. I also am the board chair of Climate XChange where we have a state network of actors taking action on climate change.

I think we need to do more building of networks across geographical networks so we can exchange information, exchange knowledge, exchange best practices, and become more efficient at responding to these challenges.

DR. LEVINE: Adam Levine of Public Health at Johns Hopkins. One of the things here - I really enjoyed the panel that we had as well as the tabletop discussions. One of the things to me that sticks with me from the panel is that across all three sectors, everybody was talking about how - obviously, more money, more staff, bigger budgets. That would be amazing. But also, we need new collaboration. That came up across everybody.

And the reason why that sticks with me is not because I am not necessarily surprised to hear people say that but the fact that there would be a panel where that would be one of the main messages I think underscores how it often does not happen on its own.

I think about how - in my academic work, I often am reaching out to various kinds of people whether it is policymakers at all levels, whether it is different kinds of practitioners or whatever it is sort of essentially asking them about whether or not there is collaboration they would like to be having that they do not have right now. Usually the response is essentially along the lines who are you. What are you doing? Once that gets over that, it turns out that people have a lot to say.

I just think that there is a lot of low-hanging fruit and that we should be thinking about ways to really go from here to there to achieve some of the kinds of

collaboration that as the panelists were talking about are really important but does not happen on its own.

DR. BRUNSON: Building on that, that was actually my theme so the other theme I wanted to explore. Quinton and Seth were both mentioning connecting and reaching across geographic networks, being able to communicate maybe organization to organization, et cetera.

But something I would like to pose and especially to those of you who are more at a state and local level is what do you need to make that type of connection possible. What would make that easier for you to be able to connect with academia, connect with government, connect with people at federal levels, et cetera?

COMMISSIONER STEGMANN: I was thinking kind of riffing off a lot of what had already been said that somebody from outside of academia. With all due respect, you guys are intimidating. You are extremely well educated, knowledgeable. Just being really frank, it is just a little intimidating for somebody who is not in that world. I am not sure how we address that but I just want you to know that that is certainly a fear like why am I going to this. I am not sure how I got into this room. I am so glad that I did so thank you for having me. But I do not feel worthy of being in a room of such well-educated folks. There is just that human - there is positionality. There is authority.

There are all sorts of classes, all different things that we, as humans, come into our brains whenever we come into a new situation.

And the other thing too when we talk about communication, it was mentioned. It is a different language. In politics, there is a different terminology. In academia, there is different terminology. You all just have a basic understanding. When I meet another elected, we have a basic common language. When you meet other people similar, you get each other right away. But when you try to combine those two worlds, there is a learning curve. Trying to figure out how to bridge that gap I think is something to think about.

The other thing too, is to understand and it just dawned on me when people were talking but there is a different mission, a different charge from a city government to a county government to a state and to a federal. Depending on what area you want to work on is you would need to determine what do I want to go down to the local or do I want to be at a higher policy level up to the federal government. But they are all very distinct and different. And cities - they mostly do infrastructure. Counties - we do human services. Depending on what it is that you want to work on would dictate what level of government you want to interact with.

The other thing is kind of obvious but to - it takes effort to maintain relationships. I just think about family members. I have long lost cousins or aunts. They moved away. They did not call me. I did not call them. We just kind of lost track of each other. But the people that I am close with like I see them at Christmas. There is a concerted effort to maintain that relationship. I think on both sides, there has to be a willingness where people are going to make a commitment to grow that relationship.

Feel free. I am happy to engage with any of you, all of you. I have cards here. Hopefully, we can make more of a concerted effort to be more connected. But if we do not decide to do that and if I just walk out of here and I do never see any of you again, it is not going to happen. I would just offer to you. I do not have all the answers. But if you need anything in Oregon, I can certainly direct you to the right place. I would just say we just have to make a decision and prioritize if we want to maintain those relationships or not.

DR. BRUNSON: One more comment over here.

MR. DUNAWAY: Lori, thank you. Multnomah County, right? Let me ask. Relative to your question about the - I forget how you put it exactly but the relationships with the academics who are scary and too smart for their own

good or whatever. Do you feel that way about the folks at Portland State University?

COMMISSIONER STEGMANN: No because we interact with them on a regular basis. That is a valid point.

MR. DUNAWAY: That is exactly what I wanted to ask.

COMMISSIONER STEGMANN: As soon as you establish those relationships, I can call. Hey Skip, I had this question. What do you think about this? Once those connections are made then that I think that is the first step. But then as you know, you can make that connection but if you do not maintain that relationship, the relationship is probably going to die.

MR. DUNAWAY: I am at the federal level. I taught at universities before, but I am in the federal government right now. But I work at the city level, smart cities. One of our key principles is try to get the communications to be delivered by people who have credibility and are trusted and are known by the individuals at the community level that you are trying to deal with. I was just curious about your perspective on that from an academic perspective.

COMMISSIONER STEGMANN: Almost what I was thinking is that to some degree, folks who - depending on what issue you are working on but let us say it is around homelessness. You need to have people who have been

homeless in this room or if you are working on treatment or deflection. You need to talk to people who are in recovery, who have gone through deflection, who have been incarcerated. The farther you get down to local governments, the closer we get to working with those individual populations. But as has been said, people do not trust institutions and rightfully so. There is good reason.

And then there is where our nonprofits and our CDOs, our culturally specific CDOs come in because they already have those relationships with many of those individuals and that is why we contract out with them because those communities - honestly, they do not trust us. That is something that we are constantly trying to overcome. Maybe it is a good realization to know we are not a trusted entity so we have to do our work and contract with people who are. Either try to have the relationships with the people that you want to learn more about but also realize that might not be possible and what is the next best thing.

DR. GOLDMAN: Not to reinvent wheels but the Robert Wood Johnson Foundation and I was not part of this but they have done wonderful work on developing guides for doing research and doing public health work with communities. It is incredibly good. Very detailed. A lot of great information in there. It occurs to me hearing you

talk and I have been in government too so I know what that is like. I can be trusted more as the person at the university than I used to be as from the state in the past.

It is also true that for people in government that there is a lot of art and science to getting in and working well with communities and to also have a two-way street. We are coming in from academe are not just there to pour forth our brilliance. There is a lot of information that we cannot get out of books, that we cannot learn unless there is a great communication established that is two way.

But the other thing in this guide is resource sharing because that is something I always felt when we were in government and also in academe, we sometimes do not do very well, which is that we have funding for what we are doing. But the community members - we are drawing on their time and away from their families, away from their jobs, their homes, and there is not funding for them and figuring out how do you resource that. It is important.

DR. BRUNSON: We could go on, I think, for a few more hours on these topics but we are at time. At this point, I am going to turn things back over to Bridget for an overview of the graphic notes.

Agenda Item: Summary from the Day and Graphic**Note Highlights**

MS. KELLY: We have these beautiful graphic notes that are a work in progress to be refined and completed. I think that we are going to put those up on the screen. I am really here as a complement to those graphic notes. They are there and they are going to be available, and we will leave them up too so if you want to be skimming them on your way out.

I am going to try to - because I kind of complement what is in those notes as opposed to just saying them back to you so you are getting two things. In that sense, I was recruited to name some themes that came out of the whole of today's discussion. Why did I agree to do that because that is going to be extremely difficult to do and I have some scribbled Post-it notes and these graphic notes? And I am going to do my best and it is not going to be comprehensive. I am not even going to try to attribute anything but just know that this all comes from you. That is just a note of really appreciation and thanks for everyone who came here in any role. If you shared an example, if you helped facilitate the table, if you participated robustly and engaged in the activities, it is just a gift that you did that today and we really appreciate that. I am going to try to honor that in what I

say but I am not saying any conclusions formally on behalf of SEAN.

I have been thinking about a few observations about what matters or things to think about and then potentially some actions. Those are the two things that I am thinking of. One is that it was this - I think Maria commented something at the beginning said something about experiences and aspirations. I feel really good that we had a good combination of that in the room today. There is this deep learning from experience but also this forward-looking thinking about aspirations and in between those two things were some signs of progress. That feels very optimistic to me.

I heard a lot about the challenge of discerning when and how widely to collaborate the idea of collaboration. It could be so huge. You have so many voices in the room. How do you make sense of that? You need to be fast. You cannot be fast if you need to also - but on the other hand, all of the benefits that we heard of collaboration. That feels like a core challenge.

Part of that, I think, relates back to the idea of keeping the excellence at the silos. It is like do not throw out that doing what you do well when you are building the bridges to the others. The excellent way but the silos

may not be as strong. What is the bridge that meets the moment?

And that had me thinking about the idea of divide. So going back to some more ideas that were introduced in the first panel. My wondering about divides is if there is a way to think of them less as something that we have to cross a bridge and actually as being more of a continuum. That it is not so much like a one or the other. They are in a relationship with each other. The two sides of whatever divided is in a relationship with each other in some way and that is the political divide, the divides among the different sectors, the different disciplines within the sciences, the different ways of knowing. That is a potentially a mindset shift that might matter a lot for collaboration.

I think that relates to some of the ideas about how maybe it is not a competition of interest. It is how do we find ways to meet multiple interests at once and kind the way that having to have a common goal is actually harmful. It is more like how can we have an activity that meets many goals.

I have a worry I expressed in our first tabletop about hierarchy. There are a lot of hierarchies of value that are sometimes states, sometimes assumed, sometimes implicit and that I think really affect the collaborations.

If you do not have collaborators who really believe that your clinician and your artist are equally valuable in terms of getting where we need to go, you are already in a challenge when you start and that also applies to just your statistician and your ethnographer. It applies to your health person and your transportation person. Sometimes they go unnamed, but I think that hierarchy of value is pretty important.

And then that leads me to equity. We heard the ways that more a collaborative whole of society approach could create the space to better reach the hardest to reach is a phrase that you might also often hear and that is probably true.

But the other side of that is the recognition that the people who know the system's failure best are the ones who have been failed by the system and actually the creativity and resilience might be stronger there. If you survived in the system that failed you, you are resilient. There are resilient skills that are going on potentially untapped.

Something about decoupling resilience from emergency because we heard so many examples of chronic crises. And you have to be able to handle chronic crises and also be ready for the large-scale emergency crises. Maybe all of that just sums up resilience on whose terms.

We heard a lot about that. So many different ideas of what resilience might mean and actually maybe they can coexist in the same way that the interest can coexist.

A couple of actions or ways of moving from what someone today described as a reactive state to a more proactive state. One is that it seems to me there is a real need for more practicing and more imagining. Practicing being prepared but also imagining what the next thing is going to be so that we are not always fighting the last thing that we experienced.

Relationships so strongly - nobody will be surprised that I name that. The kind of before, during, and after. I do not think anybody said this explicitly but what I realized in listening was the nature of matchmaking because you do not know who you do not know and you do not know how to approach the person. You do not speak their language. That is a role and a skill that is not potentially undervalued but needed.

Questions being as important as answers. The discipline of asking and listening and then discussing and working together.

Certainly, we heard about some needs for various kinds of infrastructure, various kinds of skills, so many deeply human skills like communicating and collaborating

and connecting and the need for those capabilities to be present.

In listening to the examples, it just really stood out to me that a really well-supported pilot is a pilot that scales and adapts well. The risk of having an idea and trying it in a really scrappy way seems like that could be really great but on the other hand, if you are going to set yourself up to succeed, you really need to be thinking about all of the things that are going to be needed in the broadest possible way. That is the first point of imagination, I think, is at that first try. That was very strong in the example at our table.

And then because this is SEAN, I am obligated to say something about what is the role of the social behavioral sciences. And I think many people have noted this. I will say it one more time, which is that these are the human sciences. This is something that the humans need to do, be more collaborative, be more whole of society, and in theory, it is the social and behavioral sciences that should be able to be the partners in figuring out how to do it well because that is what those sciences are all about. It is sort of like doing the thing that we are saying needs to be done ourselves. Being more collaborative ourselves. And this very much engaging from within rather than advising from without.

The last thing I am going to say is going to be cheesy. I was thinking of it this way, which is that we need to look out the window more at what other people are doing. We need to look in the mirror more at what we are doing and we need to look through the door more to what the future needs to be.

(Applause)

Agenda item: Final Reflections and Adjourn

DR. LEMOS: Now it is time - we are so terribly grateful for all of you who came here who gave us your time. I will tell Lori. I am not speaking for all academics because I can barely represent myself, but I am always in awe and intimidated by the amount of good that you guys are doing the work. If I could go back, I would go back. Thank you so much for all your time, all your experience, all your stories, all your contributions. I think that we do all the work that we do in our lanes, outside our lanes, across our lanes so that we can really build resilience, including resilience of groups like this, sustained and resilient.

On behalf of the National Academies and SEAN, I would like to thank everyone who participated, both who are here and who have joined virtually. And a special thanks for all the speakers and all the coordinators and everybody who helped. I want to again specifically thank again the

staff on the other side, Bridget, Ron, Annie, Sean, Chelsea, and Malvern. Without you, this would never have happened. They make us look good because they are doing all the work.

A little bit more of housekeeping, a post-event questionnaire will be mailed to you soon. We appreciate anything back you can provide on your experience in attending this symposium data. We always collect data. We can do it again, but we can never collect the same data again. It is a no-regrets thing.

In the next week or so, a video recording of today's panel discussions will be available on the event webpage. The symposium materials, activity worksheet, and graphic notes will also be posted on the symposium webpage for all of you. It is going to be public.

A reminder for the SEAN Executive Committee, we are going to meet right after this. But for now, I just want to thank everybody for coming. I learned a lot from all of you. Thank you.

(Adjourned at 3:20 p.m.)